



INTEGRATED FLUID POWER SOLUTIONS

THE WORLD OF HOSE



NOT JUST ANY LOW-TEMPERATURE HOSE

PolarFlex® MegaSys® is a specialised type of hose designed to work in frigid temperatures without stiffening or cracking of the hose covers and tubes. Cracking can cause the hose tube and body to separate with leaks and even premature failure as a result. PolarFlex® rubbers and hose assemblies remain flexible and allow articulation and reliable operation even in the brittle cold. The new PolarFlex® MegaSys® combines this peace of mind with all the advantages of the MegaSys® programme.



INNOV

MegaSys® hoses that stay flexible and durable down to -57°C and up to 420 bar



Cold weather operations demand a special breed of hose

Quality products mean reliable performance

During operations in arctic environments, hydraulic fluid goes from a cold sludge to a hot flow and that's why it's important that tube compounds tolerate extreme temperature swings and volumetric pressure changes. Standard hose tubes will absorb the hot hydraulic fluid, become spongy and crack. This could result in the release of particles damaging expensive hydraulic components such as pumps and valves. Not so the new PolarFlex® MegaSys® hoses.

In addition, regular steel couplings heat up fast when pressurised in cold weather conditions but PolarFlex® MegaSys® assemblies are designed to transmit heat evenly to a cold hose without damaging the connection.

Peace of mind in the coldest environments

With the introduction of the PolarFlex® MegaSys® hose, the MegaSys® product programme now also helps you to save time, space and money in extreme cold weather conditions.

- › Simple hose selection with constant pressure ratings
- › Easy hose identification in stock and in service
- › Shorter overall hose assembly length
 - M4KL: bends up to 50% of EN 853 2SN and PolarFlex® G2L
 - EFGxKL: bends up to 40% of EN 856
- › Easier plumbing and routing in tight applications
- › Fewer bent tube fittings
- › Extended lifetime in bending, flexing applications
- › Low inventory requirements



ATTENTION

Size vs WP (MPa)																International standards			MTF	XTF	Twin	Page
-24	-28	-32	-36	-38	-40	-44	-48	-52	-54	-56	-60	-64	-72	-80	EN	SAE	ISO					
38mm	44mm	51mm	57mm	60mm	65mm	70mm	76mm	83mm	86mm	90mm	95mm	100mm	114mm	127mm								
																SAE 100R13	ISO 18752 AC				36	
																SAE 100R15	ISO 18752 DC // ISO 3862 R13				37	
	42.0	42.0														EN 856 R13	SAE 100R13	ISO 3862 R15	X			38
	35.0	35.0														EN 856 R12	SAE 100R12	ISO 3862 R13	X			39
																EN 856 R12	SAE 100R12	ISO 3862 R12	X			40
	21.0	21.0														EN 856 R12	SAE 100R12	ISO 3862 R12	X			41
																						42
																						43
																			X	X		44
																SAE 100R19	ISO 11237 R19	X	X		45	
																SAE 100R17	ISO 11237 R17	X	X		46	
															EN857 2SC	SAE 100R16	ISO 11237 2SC R16S	X		X	47	
	14.0	10.3													EN853 2SN	SAE 100R16 // SAE 100R2AT	ISO 11237 R16S // ISO 1436 2SN R2ATS				48	
															EN 857 2SC	SAE 100R16	ISO 11237 2SC R16S		X	X	49	
	9.0	8.0													EN 853 2SN	SAE 100R2AT	ISO 1436 2SN R2ATS				50	
	5.0	4.2													EN 853 1SN	SAE 100R1AT	ISO 1436 1SN R1ATS				51	
															EN 855 R8	SAE 100R8	ISO 3949 R8				52	
															EN 855 R7	SAE 100R7	ISO 3949 R7			X	53	
															EN 855 R7	SAE 100R7	ISO 3949 R7			X	54	
															EN 854 R3	SAE 100R3	ISO 4079 R3				55	
															EN 854 R6	SAE 100R6	ISO 4079 R6				56	
	1.1	0.8			0.5		0.4					0.4				SAE 100R4						57
																SAE 100R15	ISO 3862 R15				58	
	35.0															SAE 100R13	ISO 3862 R13				59	
																SAE 100R12	ISO 3862 R12				60	
																SAE 100R19	ISO 11237 R19	X			61	
																SAE 100R19	ISO 11237 R19				62	
																SAE 100R17	ISO 11237 R17	X			63	
	12.4	10.3													EN 853 2SN	SAE 100R2AT	ISO 1436 2SN R2ATS				64	
	9.0	8.0													EN 853 2SN	SAE 100R2AT	ISO 1436 2SN R2ATS	X			65	
	9.0	8.0													EN 853 2SN	SAE 100R2AT	ISO 1436 2SN R2ATS				66	
	5.0	4.2														SAE 100R1					67	
	0.7	0.5	0.4	0.4												SAE 20R3 / R1 EC D-1					72	
																SAE 30R14 T1					74	
																SAE 30R14 T2					75	
																SAE 30R6 / 30R7					76	
	1.4	1.1	1.1	1.0	0.9	0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.7	0.6								79
																SAE 100R5 // 1405 // J1402						80
	3.5	3.5			3.5		3.5									SAE J1405						81

[1] Indicates main component of compound

[*] Application sign-off

Abbreviations	
FB	Fibre Braid
HSW	Helical Spiral Wire
SW	Spiral Wire
WB	Wire Braid
YS	Yarn Spiral

Abbreviation	Standard
ABS	American Bureau of Shipping
BV	Bureau Veritas
DNV	Det Norske Veritas (North Sea floating vessels)
GL	Germanischer Lloyd
LR	Lloyd's Register
MSHA	Mine Safety and Health Administration (US)





INDUSTRIAL HOSE SELECTION TABLE

THE WORLD OF HOSE

	HOSE TYPE	APPLICATION							TUBE (1)	DISCHARGE (D)/SUCTION & DISCHARGE (SD)	TEMPERATURE RANGE min./max. °C	SIZE VS WP (MPa)							
		AIR	CLEANING	WATER	OIL	CHEMICAL	STEAM	FOOD				ABRASION	6 mm	8 mm	10 mm	13 mm	16 mm	19 mm	22 mm
CLEANING	WATER BLAST		x						CR	SD	-20/70			100.0	100.0				
	JETCLEAN™ 2JC		x						NBR	SD	-40/155		40.0	40.0	40.0				
	JETCLEAN™ 1JC		x						NBR	SD	-40/155	20.0	20.0	20.0	20.0				
	CLEAN MASTER™ PRESSURE WASH 1WB		x						NBR	SD	-40/125		35.0	35.0	28.0				
	CLEAN MASTER™ PRESSURE WASH 2WB		x						NBR	SD	-40/125	24.0	25.0	21.0	17.5				
PETROLEUM TRANSFER	PREMIUM™ FUEL MASTER D			x	x				NBR	D	-30/90						2.0		
	PREMIUM™ FUEL MASTER SD			x	x				NBR	SD	-30/90						1.6		
	ESSENTIAL™ OIL MASTER SD			x	x				NBR	SD	-30/100						1.0		
	ESSENTIAL™ OIL MASTER LITE SD			x	x				NBR	SD	-30/100						1.0		
	ESSENTIAL™ REEL MASTER D			x	x				NBR	D	-30/70								
	ESSENTIAL™ BUNKER MASTER D			x	x				NBR	D	-30/90								
STEAM	PREMIUM™ TAR MASTER SD			x	x				NBR	SD	-30/160								
	PREMIUM™ STEAM MASTER			x			x		EPDM	D	-40/210				1.8	1.8	1.8		
	PREMIUM™ STEAM MASTER RED			x			x		EPDM	D	-40/210				1.8	1.8	1.8		
ACID-CHEMICAL	PREMIUM™ HEATER MASTER			x			x		EPDM	D	-20/164				0.6	0.6	0.6		
	PREMIUM™ CHEM MASTER XLPE SD			x		x			XLPE	SD	-20/65						1.6		
	PREMIUM™ CHEM MASTER EPDM D			x		x			EPDM	D	-40/95				1.6		1.6		
	PREMIUM™ CHEM MASTER EPDM SD			x		x			EPDM	SD	-40/95						1.6		
	PREMIUM™ CHEM MASTER UHMWPE SD	x		x		x			UHMWPE	SD	-20/65				1.6		1.6		
	CHEM MASTER™ XTREME™ FEP SD			x		x			FEP	SD	-40/149						1.3		
FOOD & BEVERAGES	CHEM MASTER™ PAINT SPRAY			x	x	x			PA11	D	-40/66	3.5	3.5	3.5	5.2		5.2		
	PREMIUM™ DAIRY MASTER SD			x				x	NBR	SD	-30/90								
	PREMIUM™ DAIRY MASTER LITE SD			x				x	NBR	SD	-30/90								
	PREMIUM™ WASHDOWN MASTER			x			x		EPDM	D	-30/164			0.6	0.6	0.6	0.6		
	PREMIUM™ MILK MASTER SD			x				x	NR	SD	-30/70								
	PREMIUM™ BEVERAGE MASTER D			x				x	CR/NR	D	-30/90				1.6		1.6		
WATER & AIR	ESSENTIAL™ WATER MASTER D	x		x				x	EPDM	D	-35/80								
	ESSENTIAL™ WATER MASTER SD	x		x				x	EPDM	SD	-35/80								
	GP80 PLUS			x	x	x			NBR		-40/100	3.7	3.7	3.7	3.7	3.0	3.0		
	LOCK-ON PLUS	x		x	x				NBR	D	-40/100	2.1		2.1	2.1	2.1	2.1		
	PREMIUM™ GP MASTER	x		x	x				NBR	D	-40/95	2.5	2.5	2.5	2.5	2.5	2.5		
	GP60			x	x	x			NBR		-40/100	2.0	2.0	2.0	2.0	2.0	2.0		
	PREMIUM™ MULTI MASTER	x		x					EPDM	D	-40/100	2.0	2.0	2.0	2.0	2.0	2.0		
	PLANT MASTER™ XTREME™ 250	x		x	x				NBR	D	-40/100	1.7		1.7	1.7	1.7	1.7		
	PLANT MASTER® 200 / 250 BLACK	x		x					EPDM	D	-40/93	1.4		1.4	1.4	1.4	1.4		
	GP40	x		x				x	EPDM	D	-40/100	1.3	1.3	1.3	1.3	1.3	1.3		
MATERIAL HANDLING	AIR MASTER™ DIVING UMBILICAL	x							NBR	D	-40/49			7.8	6.9				
	ESSENTIAL™ SANDBLAST MASTER D			x				x	NR/BR	D	-40/75						1.2		
	ESSENTIAL™ CEMENT MASTER D			x				x	NR/BR	D	-20/80								
	ESSENTIAL™ CEMENT MASTER SD			x				x	NR/BR	SD	-20/80								
	ESSENTIAL™ SILO MASTER D - FOOD			x				x	NR/BR	D	-20/80								
	ESSENTIAL™ SILO MASTER SD - FOOD			x				x	NR/BR	SD	-20/80								
	ESSENTIAL™ CONCRETE MASTER D			x				x	NR/BR/SBR	D	-20/70						4.0		

The recommended applications have to be interpreted as guidelines only. In case of other specific applications, please contact your Gates industrial hose supplier.





EXPLANATION OF SYMBOLS

Hose bore	Hose outside diameter	Maximum working pressure	Minimum burst pressure
			

SIZE VS WP (MPa)																				STANDARDS & HOMOLOGATIONS	Page							
25 mm	32 mm	35 mm	38 mm	40 mm	45 mm	50 mm	51 mm	57 mm	63 mm	65 mm	70 mm	75 mm	76 mm	80 mm	90 mm	100 mm	102 mm	110 mm	125 mm			127 mm	152 mm	203 mm	254 mm			
																									88			
																									89			
																									90			
																									91			
																									91			
	2.0	2.0		2.0			2.0	2.0		2.0			2.0	2.0		2.0	2.0					2.0			EN 12115 . EN 1761	92		
	1.6	1.6		1.6			1.6	1.6		1.6			1.6	1.6		1.6	1.6				1.6	1.6			EN 12115 . EN 1761	93		
	1.0	1.0		1.0			1.0			1.0			1.0			1.0				1.0		1.0				94		
	1.0	1.0		1.0				1.0		1.0			1.0		1.0	1.0					1.0	1.0				95		
	1.6	1.6	1.6	1.6	1.6			1.6													1.6	1.6	1.6	1.6			96	
																											97	
	1.8	1.8		1.8				1.8		1.4			1.4														98	
	1.8	1.8		1.8				1.8																		EN ISO 6134:2005-2A	99	
	1.8	1.8		1.8				1.8																		EN ISO 6134:2005-2A	100	
	0.6	0.6		0.6				0.6																		BS 5122/A2	101	
	1.6	1.6		1.6			1.6	1.6		1.6			1.6	1.6		1.6											102	
	1.6	1.6		1.6			1.6	1.6		1.6			1.6	1.6		1.6	1.6									EN 12115	103	
	1.6	1.6		1.6			1.6	1.6		1.6			1.6	1.6		1.6	1.6					1.6				EN 12115	104	
	1.6	1.6		1.6			1.6	1.6		1.6			1.6	1.6		1.6	1.6									EN 12115	105	
	1.3			1.3				1.3		1.3			1.3														106	
																											107	
		1.0		1.0	1.0	1.0		1.0		1.0			1.0			1.0										FDA, ADI-free	108	
		1.0		1.0	1.0	1.0		1.0		1.0			1.0			1.0										FDA, ADI-free	109	
	0.6	0.6		0.6				0.6																			FDA, ADI-free	110
				0.6	0.6	0.6		0.6		0.6		0.6															FDA, ADI-free	111
	1.6	1.6		1.6	1.6			1.6		1.6			1.6	1.6		1.6											FDA, ADI-free	112
	1.0	1.0		1.0				1.0		1.0			1.0			1.0					1.0	1.0	1.0				113	
	1.0	1.0		1.0				1.0		1.0			1.0			1.0					1.0	1.0	1.0				114	
	3.0	3.0		3.0				3.0																			115	
																											116	
	2.5																										118	
	2.0																										119	
	2.0	2.0		2.0																							120	
	1.7	1.7		1.7																							121	
	1.4																										122	
	1.3	1.3		1.3																							123	
																											MIL-H-2815G Section 3.122	124
	1.2	1.2		1.2																							DIN 53516	125
								0.8		0.8			0.8	0.8	0.8		0.8	0.8									DIN 53516	126
								0.8		0.8			0.8	0.8	0.8		0.8	0.8				0.8	0.8	0.8			DIN 53516	127
								0.8		0.8			0.8	0.8	0.8		0.8	0.8									FDA	128
								0.8		0.8			0.8	0.8	0.8		0.8	0.8									FDA	129
	4.0	4.0	4.0	4.0			4.0			4.0																	DIN 53516	130

[1] Indicates the main component of the compound

EXPLANATION OF SYMBOLS

Minimum bend radius	Vacuum	Weight	Hose
			

THE WORLD OF HOSE
INTEGRATED FLUID POWER SOLUTIONS



HYDRAULIC HOSE



HYDRAULIC HOSE CONSTANT PRESSURE

THE WORLD OF HOSE

IA5600



↔		⊘		⌚		🌪️		📏		📊	
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-6	10	3/8	0.69	17.5	5600	38.5	22400	154.0	65	41	6IA5600

RECOMMENDED FOR	High pressure hydraulic applications. Easy to route and to install in tight areas.
TUBE	NBR (Nitrile) based.
REINFORCEMENT	Two braids of high tensile steel wire.
COVER	NBR/PVC based.
TEMPERATURE RANGE	-40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.
STANDARDS	Exceeds ISO 18752 Type AC.
COUPLINGS	MegaCrimp®.
BENEFITS	70% of EN 857 2SC and 50% of EN 853 2SN bend radius at rated working pressure. Exceeding maximum working pressure requirements of EN 857 2SC. Exceeds impulse life performance of ISO 18752 Type AC @ 200.000 cycles. Lightweight.

HYDRAULIC HOSE CONSTANT PRESSURE

ID5K



↔		⊘		⌚		🔥		⤵		⚖️	📏
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-12	19	3/4	1.14	29.0	5000	35.0	20000	140.0	120	119	12ID5K
-16	25	1	1.45	36.8	5000	35.0	20000	140.0	150	199	16ID5K

RECOMMENDED FOR

Extremely high pressure and high impulse hydraulic applications.
Lightweight compact solution for optimal routing and energy efficiency.

TUBE

NBR (Nitrile) based.

REINFORCEMENT

Four alternating layers of spiralled, high tensile steel wire.

COVER

CR (Chloroprene) based. MSHA approved.

TEMPERATURE RANGE

-40°C to +121°C. For water emulsions, etc. see Temperature Limits Table.

STANDARDS

Exceeds ISO 18752 Type DC. ISO 3862 R13. EN 856 R13. SAE 100R13.

COUPLINGS

-12 to -16: GlobalSpiral Stem + GSID1F-4 Ferrule.

BENEFITS

Up to 40% of EN 856 4SP bend radius at rated working pressure.

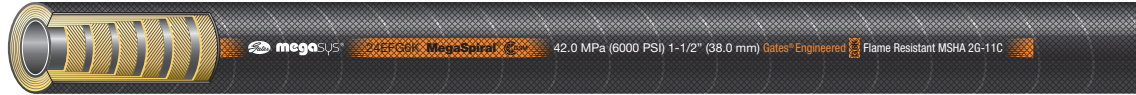
Exceeds impulse life performance of ISO 18752 type DC @ 1.000.000 impulse cycles.

Lightweight.

HYDRAULIC HOSE CONSTANT PRESSURE

THE WORLD OF HOSE

EFG6K



-size	↔		⊘		⌚		🌪️		📏	📊	📦
	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-6	10	3/8	0.80	20.2	6000	42.0	24000	168.0	65	71	6EFG6K
-8	12	1/2	0.95	24.0	6000	42.0	24000	168.0	90	89	8EFG6K
-10	16	5/8	1.09	27.6	6000	42.0	24000	168.0	100	115	10EFG6K
-12	19	3/4	1.24	31.4	6000	42.0	24000	168.0	120	144	12EFG6K
-16	25	1	1.53	38.7	6000	42.0	24000	168.0	150	223	16EFG6K
-20	31	1.1/4	1.97	50.0	6000	42.0	24000	168.0	210	399	20EFG6K
-24	38	1.1/2	2.26	57.4	6000	42.0	24000	168.0	250	482	24EFG6K
-32	51	2	2.80	71.1	6000	42.0	24000	168.0	635	719	32EFG6K

RECOMMENDED FOR

Extremely high pressure and high impulse hydraulic applications.

TUBE

NBR (Nitrile) based.

REINFORCEMENT

Four (six for -20 to -32) alternating layers of spiralled, high tensile steel wire.

COVER

CR (Chloroprene) based. MSHA approved.

TEMPERATURE RANGE

-40°C to +121°C. For water emulsions, etc. see Temperature Limits Table.

STANDARDS

Exceeds ISO 3862 R15. SAE 100R15.

COUPLINGS

-6 to -20: GlobalSpiral; -24, -32: GlobalSpiral Maximum.

TYPE APPROVALS

DNV, GL, LR, BV and ABS.

CHARACTERISTICS/BENEFITS

Up to 40% of EN 856 4SP/4SH bend radius at rated working pressure.

Extremely flexible.

Superior flex impulse performance: tested to 1,000,000 impulse cycles at 50% of SAE 100R15 bend radii (except -32).

Meets or exceeds performance requirements of EN 856 4SP (-8 to -32) and EN 856 4SH (-12 to -32).

EFG6K hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

OPTIONAL



EFG6K-MTF: the complete range of EFG6K is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard EFG6K cover as per ISO 6945, superior ozone and weathering resistance.



EFG6KL: for low-temperature applications, Gates recommends the EFG6KL range down to -57°C constant. Please refer to page 58.

IMPORTANT



Please consult Gates' Product Application Engineers for use of MegaTuff™ hose in reverse bending applications.

HYDRAULIC HOSE CONSTANT PRESSURE

EFG5K



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-6	10	3/8	0.80	20.2	5000	35.0	20000	140.0	65	71	6EFG5K
-8	12	1/2	0.95	24.0	5000	35.0	20000	140.0	90	89	8EFG5K
-10	16	5/8	1.09	27.6	5000	35.0	20000	140.0	100	115	10EFG5K
-12	19	3/4	1.24	31.4	5000	35.0	20000	140.0	120	144	12EFG5K
-16	25	1	1.53	38.7	5000	35.0	20000	140.0	150	223	16EFG5K
-20	31	1.1/4	1.97	50.0	5000	35.0	20000	140.0	210	399	20EFG5K
-24	38	1.1/2	2.26	57.4	5000	35.0	20000	140.0	250	482	24EFG5K
-32	51	2	2.80	71.1	5000	35.0	20000	140.0	635	719	32EFG5K

- RECOMMENDED FOR** Extremely high pressure and high impulse hydraulic applications.
- TUBE** NBR (Nitrile) based.
- REINFORCEMENT** Four (six for -20 to -32) alternating layers of spiralled, high tensile steel wire.
- COVER** CR (Chloroprene) based. MSHA approved.
- TEMPERATURE RANGE** -40°C to +121°C. For water emulsions, etc. see Temperature Limits Table.
- STANDARDS** Exceeds ISO 3862 R13. EN 856 R13. SAE 100R13.
- COUPLINGS** -6 to -20: GlobalSpiral; -24, -32: GlobalSpiral Maximum.
- TYPE APPROVALS** DNV, GL, LR, BV and ABS.
- CHARACTERISTICS/BENEFITS** Up to 40% of EN 856 4SP/4SH bend radius at rated working pressure.
Extremely flexible.
Superior flex impulse performance: tested to 1,000,000 impulse cycles at 50% of EN 856 R13 and SAE 100R13 bend radii (except -32).
Meets or exceeds performance requirements of EN 856 4SP (-10 to -32) and EN 856 4SH (-20 to -32).
EFG5K hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

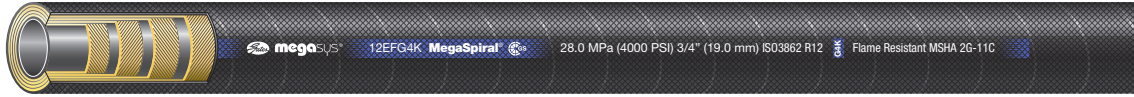
- OPTIONAL**
- EFG5K-MTF: the complete range of EFG5K is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard EFG5K cover as per ISO 6945, superior ozone and weathering resistance.
 - EFG5K-XTF: Sizes -6 up to -20 are also available with the Gates special XtraTuff™ cover which offers 25 times the abrasion resistance of the standard EFG5K cover as per ISO 6945.
 - EFG5KL: for low-temperature applications, Gates recommends the EFG5KL range down to -57°C constant. Please refer to page 59.

IMPORTANT Please consult Gates' Product Application Engineers for use of MegaTuff™ hose in reverse bending applications.

HYDRAULIC HOSE CONSTANT PRESSURE




THE WORLD OF HOSE


EFG4K



↔		⊘		⌚		🔥		📏		📊		📦
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.	
-6	10	3/8	0.80	20.2	4000	28.0	16000	112.0	65	71	6EFG4K	
-8	12	1/2	0.95	24.0	4000	28.0	16000	112.0	90	89	8EFG4K	
-10	16	5/8	1.09	27.6	4000	28.0	16000	112.0	100	113	10EFG4K	
-12	19	3/4	1.21	30.7	4000	28.0	16000	112.0	120	128	12EFG4K	
-16	25	1	1.50	38.0	4000	28.0	16000	112.0	150	188	16EFG4K	
-20	31	1.1/4	1.85	47.0	4000	28.0	16000	112.0	210	283	20EFG4K	

- RECOMMENDED FOR** Extremely high pressure and high impulse hydraulic applications.
- TUBE** NBR (Nitrile) based.
- REINFORCEMENT** Four alternating layers of spiralled, high tensile steel wire.
- COVER** CR (Chloroprene) based. MSHA approved.
- TEMPERATURE RANGE** -40°C to +121°C. For water emulsions, etc. see Temperature Limits Table.
- STANDARDS** Exceeds ISO 3862 R12. EN 856 R12. SAE 100R12.
- COUPLINGS** GlobalSpiral.
- TYPE APPROVALS** DNV, GL, LR, BV and ABS.
- CHARACTERISTICS/BENEFITS**
 - 40% of EN 856 4SP bend radius at rated working pressure.
 - Most flexible EN 856 R12 / SAE 100R12 hose in the industry.
 - Superior flex impulse performance: tested to 1,000,000 impulse cycles at 50% of EN 856 R12 and SAE 100R12 bend radii.
 - Meets or exceeds performance requirements of EN 856 4SP (-16, -20).
 - EFG4K hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

- OPTIONAL**
 -  EFG4K-MTF: the complete range of EFG4K is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard EFG4K cover as per ISO 6945, superior ozone and weathering resistance.
 -  EFG4K-XTF: the complete range of EFG4K is also available with the Gates special XtraTuff™ cover which offers 25 times the abrasion resistance of the standard EFG4K cover as per ISO 6945.
 -  EFG4KL: for low-temperature applications, Gates recommends the EFG4KL range down to -57°C constant. Please refer to page 60.

IMPORTANT  Please consult Gates' Product Application Engineers for use of MegaTuff™ hose in reverse bending applications.

HYDRAULIC HOSE CONSTANT PRESSURE

EFG3K



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-20	31	1.1/4	1.85	47.0	3000	21.0	12000	84.0	210	282	20EFG3K
-24	38	1.1/2	2.11	53.6	3000	21.0	12000	84.0	250	320	24EFG3K
-32	51	2	2.63	66.8	3000	21.0	12000	84.0	635	439	32EFG3K

RECOMMENDED FOR

Extremely high pressure and high impulse hydraulic applications.

TUBE

NBR (Nitrile) based.

REINFORCEMENT

Four alternating layers of spiralled, high tensile steel wire.

COVER

CR (Chloroprene) based. MSHA approved.

TEMPERATURE RANGE

-40°C to +121°C. For water emulsions, etc. see Temperature Limits Table.

STANDARDS

Exceeds ISO 3862 R12. EN 856 R12. SAE 100R12.

COUPLINGS

-20: GlobalSpiral; -24 to -32: GlobalSpiral Plus.

TYPE APPROVALS

DNV, GL, LR, BV and ABS.

CHARACTERISTICS/BENEFITS

Up to 40% of EN 856 4SP bend radius at rated working pressure.

Extremely flexible.

Superior flex impulse performance: tested to 1,000,000 impulse cycles at 50% of EN 856 R12 and SAE 100R12 bend radii (except -32).

Meets or exceeds performance requirements of EN 856 4SP.

EFG3K hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

OPTIONAL



EFG3K-MTF: the complete range of EFG3K is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard EFG3K cover as per ISO 6945, superior ozone and weathering resistance.

IMPORTANT



Please consult Gates' Product Application Engineers for use of MegaTuff™ hose in reverse bending applications.

HYDRAULIC HOSE CONSTANT PRESSURE

THE WORLD OF HOSE

HD-UHP



-size	↔		○		⌚		🌪️		📏	📊	📦
	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-10	16	5/8	1.09	27.6	Application Sign-off		24000	168.0	100	115	10HD-UHP
-12	19	3/4	1.24	31.4			24000	168.0	120	144	12HD-UHP
-16	25	1	1.53	38.7			24000	168.0	150	223	16HD-UHP
-20	31	1.1/4	1.97	50.0			24000	168.0	210	399	20HD-UHP

- RECOMMENDED FOR** Extremely high pressure hydrostatic drive applications.
- TUBE** NBR (Nitrile) based.
- REINFORCEMENT** Four (six for -20) alternating layers of spiralled, high tensile steel wire.
- COVER** CR (Chloroprene) based. MSHA approved.
- TEMPERATURE RANGE** -40°C to +121°C. For water emulsions, etc. see Temperature Limits Table.
- STANDARDS** Gates proprietary.
- COUPLINGS** -10 to -20: GlobalSpiral.
- CHARACTERISTICS/BENEFITS** 40% of EN 856 4SP/4SH bend radius.
Extremely flexible.
HD-UHP hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

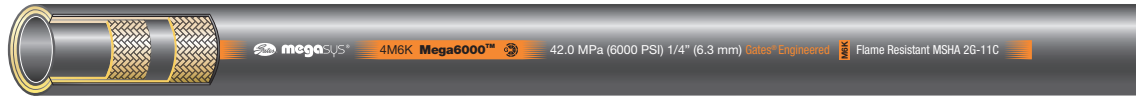
IMPORTANT



Please consult Gates' Product Application Engineers for product application validation.

HYDRAULIC HOSE CONSTANT PRESSURE

M6K



↔		⊘		⌚		🌸		📏		📊		📦
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.	
-4	6	1/4	0.58	14.9	6000	42.0	24000	168.0	50	35	4M6K	

RECOMMENDED FOR	High pressure hydraulic applications. Easy to route and to install in tight areas.
TUBE	NBR (Nitrile) based.
REINFORCEMENT	Two braids of high tensile steel wire.
COVER	NBR/PVC based. MSHA approved.
TEMPERATURE RANGE	-40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.
STANDARDS	Gates proprietary.
COUPLINGS	MegaCrimp®.
TYPE APPROVALS	DNV, GL, LR and BV.
CHARACTERISTICS/BENEFITS	70% of EN 857 2SC and 50% of EN 853 2SN bend radius at rated working pressure. Superior flex impulse performance: tested to 600,000 impulse cycles. Meets or exceeds EN 857 2SC performance requirements. Lightweight. M6K hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

IMPORTANT

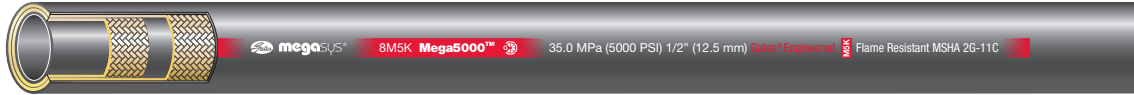


Please consult Gates' Product Application Engineers for use of MegaTuff™ hose in reverse bending applications.

HYDRAULIC HOSE CONSTANT PRESSURE

THE WORLD OF HOSE

M5K



-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.54	13.7	5000	35.0	20000	140.0	50	30	4M5K
-5	8	5/16	0.61	15.4	5000	35.0	20000	140.0	55	34	5M5K
-6	10	3/8	0.69	17.5	5000	35.0	20000	140.0	65	41	6M5K
-8	12	1/2	0.86	21.9	5000	35.0	20000	140.0	90	66	8M5K

- RECOMMENDED FOR** High pressure hydraulic applications. Easy to route and to install in tight areas.
- TUBE** NBR (Nitrile) based.
- REINFORCEMENT** Two braids of high tensile steel wire.
- COVER** NBR/PVC based. MSHA approved.
- TEMPERATURE RANGE** -40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.
- STANDARDS** Gates proprietary.
- COUPLINGS** MegaCrimp®.
- TYPE APPROVALS** DNV, GL, LR and BV.
- CHARACTERISTICS/BENEFITS**
 - 70% of EN 857 2SC and 50% of EN 857 2SN bend radius at rated working pressure.
 - Superior flex impulse performance: tested to 600,000 impulse cycles.
 - Meets or exceeds EN 857 2SC performance requirements.
 - Lightweight.
 - M5K hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

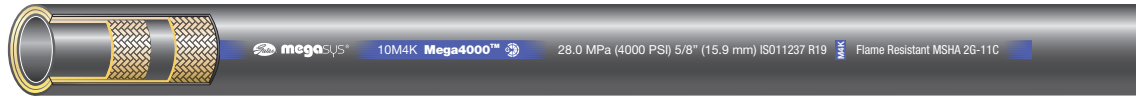
OPTIONAL M5K-MTF: The complete range of M5K (except -5) is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard M5K cover as per ISO 6945, superior ozone and weathering resistance.

M5K-XTF: the complete range of M5K is also available with the Gates special XtraTuff™ cover which offers 25 times the abrasion resistance of the standard M5K cover as per ISO 6945.

IMPORTANT Please consult Gates' Product Application Engineers for use of MegaTuff™ hose in reverse bending applications.

HYDRAULIC HOSE CONSTANT PRESSURE

M4K



-size	↔		⊘		⌚		🔥		🔧	🏋️	📏
	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.54	13.7	4000	28.0	16000	112.0	40	33	4M4K
-5	8	5/16	0.61	15.4	4000	28.0	16000	112.0	45	34	5M4K
-6	10	3/8	0.69	17.5	4000	28.0	16000	112.0	50	46	6M4K
-8	12	1/2	0.82	20.8	4000	28.0	16000	112.0	70	51	8M4K
-10	16	5/8	0.98	25.0	4000	28.0	16000	112.0	75	74	10M4K
-12	19	3/4	1.15	29.1	4000	28.0	16000	112.0	95	93	12M4K

RECOMMENDED FOR	High pressure hydraulic applications. Easy to route and to install in extremely tight areas.
TUBE	NBR (Nitrile) based.
REINFORCEMENT	Two braids of high tensile steel wire.
COVER	NBR/PVC based. MSHA approved.
TEMPERATURE RANGE	-40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.
STANDARDS	Exceeds ISO 11237 R19. SAE 100R19.
COUPLINGS	MegaCrimp®.
TYPE APPROVALS	DNV, GL, LR, BV and ABS.
CHARACTERISTICS/BENEFITS	50% of EN 857 2SC and 40% of EN 853 2SN bend radius at rated working pressure. Alternative to spiral hoses in high pressure lines where flexibility is required. Superior flex impulse performance: tested to 600,000 impulse cycles. Meets or exceeds EN 857 2SC performance requirements. Lightweight. M4K hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

OPTIONAL



M4K-MTF: the complete range of M4K is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard M4K cover as per ISO 6945, superior ozone and weathering resistance.



M4K-XTF: the complete range of M4K is also available with the Gates special XtraTuff™ cover which offers 25 times the abrasion resistance of the standard M4K cover as per ISO 6945.



For high-temperature applications, Gates recommends the M4KH hose range up to +1 °C constant. Please refer to page 61.



M4KL: for low-temperature applications, Gates recommends the M4KL range down to -57°C constant. Please refer to page 62.

IMPORTANT



Please consult Gates' Product Application Engineers for use of MegaTuff™ hose in reverse bending applications.

HYDRAULIC HOSE CONSTANT PRESSURE

THE WORLD OF HOSE

M3K



↔		⊘		⌚		🔥		📏		📊	
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.48	12.2	3250	22.5	13000	90.0	40	17	4M3K
-5	8	5/16	0.59	15.1	3250	22.5	13000	90.0	45	26	5M3K
-6	10	3/8	0.63	16.0	3250	22.5	13000	90.0	50	28	6M3K
-8	12	1/2	0.80	20.2	3250	22.5	13000	90.0	70	41	8M3K
-10	16	5/8	0.99	25.2	3250	22.5	13000	90.0	75	73	10M3K
-12	19	3/4	1.14	29.0	3250	22.5	13000	90.0	95	91	12M3K
-16	25	1	1.48	37.7	3250	22.5	13000	90.0	115	155	16M3K

RECOMMENDED FOR

High pressure hydraulic applications. Easy to route and to install in extremely tight areas.

TUBE

NBR (Nitrile) based.

REINFORCEMENT

-4 to -8: one braid of high tensile steel wire; -10 to -16: two braids of high tensile steel wire.

COVER

NBR/PVC based. MSHA approved.

TEMPERATURE RANGE

-40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.

STANDARDS

Exceeds ISO 11237 R17. SAE 100R17.

COUPLINGS

MegaCrimp®.

TYPE APPROVALS

DNV, GL, LR, BV and ABS.

CHARACTERISTICS/BENEFITS

70% of EN 857 1SC/2SC and 50% of EN 853 1SN/2SN bend radius at rated working pressure.

Superior flex impulse performance: tested to 600,000 impulse cycles.

Exceeds working pressure requirements of R17.

Meets or exceeds EN 857 1SC/2SC performance requirements.

Lightweight.

M3K hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

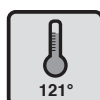
OPTIONAL



M3K-MTF: the complete range of M3K is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard M3K cover as per ISO 6945, superior ozone and weathering resistance.



M3K-XTF: the complete range of M3K is also available with the Gates special XtraTuff™ cover which offers 25 times the abrasion resistance of the standard M3K cover as per ISO 6945.



For high-temperature applications, Gates recommends the M3KH hose range up to +121°C constant. Please refer to page 63.

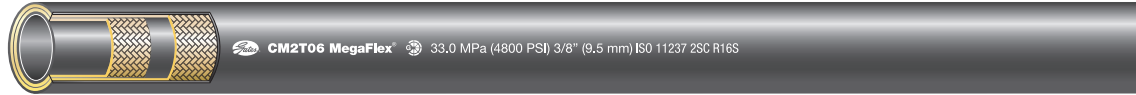
IMPORTANT



Please consult Gates' Product Application Engineers for use of MegaTuff™ hose in reverse bending applications.

HYDRAULIC HOSE TO EN / SAE STANDARD


CM2T



-size											REF.
	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	
-4	6	1/4	0.55	14.1	5800	40.0	23200	160.0	50	31	CM2T04
-5	8	5/16	0.61	15.5	5000	35.0	20000	140.0	55	35	CM2T05
-6	10	3/8	0.70	17.7	4800	33.0	19200	132.0	65	42	CM2T06
-8	12	1/2	0.82	20.8	4000	27.5	16000	110.0	90	51	CM2T08
-10	16	5/8	0.97	24.6	3625	25.0	14500	100.0	100	70	CM2T10
-12	19	3/4	1.09	27.8	3100	21.5	12400	86.0	120	81	CM2T12
-16	25	1	1.41	35.8	2400	16.5	9600	66.0	150	115	CM2T16


RECOMMENDED FOR	High pressure hydraulic applications. Easy to route and to install in tight areas.
TUBE	NBR (Nitrile) based.
REINFORCEMENT	Two braids of high tensile steel wire.
COVER	SBR based.
TEMPERATURE RANGE	-40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.
STANDARDS	Exceeds ISO 11237 2SC R16S. EN 857 2SC. SAE 100R16.
COUPLINGS	MegaCrimp®.
TYPE APPROVALS	DNV, GL, LR and BV.
CHARACTERISTICS/BENEFITS	70% of EN 857 2SC bend radius at rated working pressure. Superior flex impulse performance. Lightweight. CM2T hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

OPTIONAL



CM2T-MTF: the complete range of CM2T is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard CM2T cover as per ISO 6945, superior ozone and weathering resistance.

IMPORTANT



Please consult Gates' Product Application Engineers for use of MegaTuff™ hose in reverse bending applications.

HYDRAULIC HOSE TO EN / SAE STANDARD

THE WORLD OF HOSE

M2T

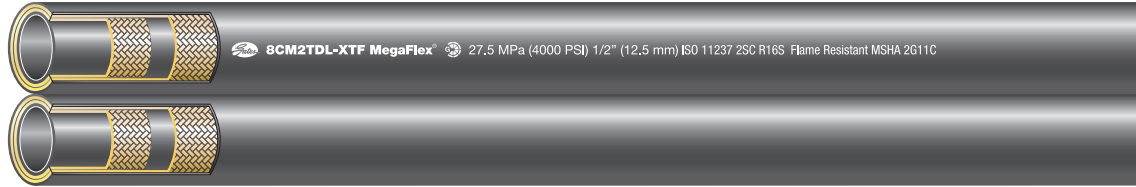


-size	↔		⊘		⌚		🔥		📏	🏋️	📦
	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-20	31	1.1/4	1.67	42.3	2300	15.9	9200	63.6	210	225	20M2T
-24	38	1.1/2	2.00	50.8	2000	14.0	8000	56.0	254	263	24M2T
-32	51	2	2.53	64.3	1500	10.3	6000	41.2	318	335	32M2T

RECOMMENDED FOR	High pressure hydraulic applications. Easy to route and to install in tight areas.
TUBE	NBR (Nitrile) based.
REINFORCEMENT	Two braids of high tensile steel wire.
COVER	NBR (Nitrile) based. MSHA approved.
TEMPERATURE RANGE	-40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.
STANDARDS	Exceeds ISO 11237 2SC R16S. SAE 100R16 (-20). Exceeds ISO 1436 2SN R2ATS. EN 853 2SN. SAE 100R2AT.
COUPLINGS	-20: MegaCrimp® ; -24, -32: GlobalSpiral Plus.
TYPE APPROVALS	DNV and ABS.
CHARACTERISTICS/BENEFITS	75% of ISO 11237 2SC (-20) and 50% of ISO 1436 2SN R2 (-24 and -32) bend radius at rated working pressure. Superior flex impulse performance. Higher working pressure than ISO 11237 2SC R16 (-20) and ISO 1436 2SN R2 (-24 and -32). Lightweight. M2T hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

HYDRAULIC HOSE TO EN / SAE STANDARD

CM2TDL-XTF



↔		⊘		⌚		🔥		⤴		⚖️	📏
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-6	10	3/8	0.70	17.7	4800	33.0	19200	132.0	65	86	6CM2TDL-XTF
-8	12	1/2	0.82	20.8	4000	27.5	16000	110.0	90	104	8CM2TDL-XTF

RECOMMENDED FOR

High pressure and return lines such as boom arm and forklift applications.

TUBE

NBR (Nitrile) based.

REINFORCEMENT

Two braids of high tensile steel wire.

COVER

NBR (Nitrile) based. MSHA approved.

TEMPERATURE RANGE

-40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.

STANDARDS

Exceeds ISO 11237 2SC R16S. EN 857 2SC. SAE 100R16.

COUPLINGS

MegaCrimp®.

CHARACTERISTICS/BENEFITS

70% of EN 857 2SC bend radius at rated working pressure.

Superior flex impulse performance.

Lightweight.

CM2T - Twin hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

No need to use clamps as the two lines are vulcanised together to form one single unit.

Gates special XtraTuff™ cover which offers 25 times the abrasion resistance of the standard CM2T cover as per ISO 6945.

IMPORTANT



Gates recommends minimum split length of 250 mm depending on the application. Do not expose hose reinforcement when splitting hoses.

HYDRAULIC HOSE TO EN / SAE STANDARD

THE WORLD OF HOSE

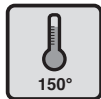
G2



-size											
	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.58	15.0	5800	40.0	23200	160.0	50	35	4G2
-5	8	5/16	0.64	16.3	5000	35.0	20000	140.0	55	39	5G2
-6	10	3/8	0.73	18.8	4800	33.0	19200	132.0	65	51	6G2
-8	12	1/2	0.86	21.8	4000	27.5	16000	112.0	90	61	8G2
-10	16	5/8	0.98	25.1	3625	25.0	14500	100.0	100	73	10G2
-12	19	3/4	1.14	29.0	3100	21.5	12400	86.0	120	91	12G2
-16	25	1	1.48	37.6	2400	16.5	9600	66.0	150	129	16G2
-20	31	1.1/4	1.87	47.5	1825	12.5	7300	50.0	210	225	20G2
-24	38	1.1/2	2.15	54.6	1300	9.0	5200	36.0	250	263	24G2
-32	51	2	2.65	67.3	1175	8.0	4700	32.0	315	335	32G2

RECOMMENDED FOR	High pressure hydraulic applications.
TUBE	NBR (Nitrile) based.
REINFORCEMENT	Two braids of high tensile steel wire.
COVER	NBR/PVC based. MSHA approved.
TEMPERATURE RANGE	-40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.
STANDARDS	Exceeds ISO 1436 2SN R2ATS. EN 853 2SN. SAE 100R2AT.
COUPLINGS	-4 to -20: MegaCrimp®; -24, -32: GlobalSpiral Plus.
TYPE APPROVALS	DNV, GL, LR, BV and ABS.
CHARACTERISTICS/BENEFITS	50% of SAE 100R2 bend radius at rated working pressure. Superior flex impulse performance: tested to 600,000 impulse cycles. G2 hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

OPTIONAL



G2XH: For high-temperature applications, Gates recommends the G2XH hose range up to +150°C constant. Please refer to page 64.



G2L: for low-temperature applications, Gates recommends the G2L range down to -57°C constant. Please refer to page 66.

HYDRAULIC HOSE TO EN / SAE STANDARD

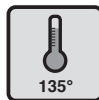
G1



-size	↔		⊘		⌚		🌪️		📏	🏋️	REF.
	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	
-4	6	1/4	0.53	13.5	3250	22.5	13000	90.0	50	22	4G1
-5	8	5/16	0.59	15.1	3100	21.5	12400	86.0	55	26	5G1
-6	10	3/8	0.69	17.1	2600	18.0	10400	72.0	65	32	6G1
-8	12	1/2	0.82	20.3	2325	16.0	9300	64.0	90	39	8G1
-10	16	5/8	0.94	23.5	1900	13.0	7600	52.0	100	46	10G1
-12	19	3/4	1.10	27.6	1525	10.5	6100	42.0	120	59	12G1
-16	25	1	1.41	35.4	1275	9.0	5100	36.0	150	84	16G1
-20	31	1.1/4	1.71	43.4	925	6.4	3700	25.6	210	128	20G1
-24	38	1.1/2	1.96	49.8	725	5.0	2900	20.0	250	145	24G1
-32	51	2	2.52	64.0	600	4.2	2400	16.8	315	205	32G1

RECOMMENDED FOR	Medium pressure hydraulic applications.
TUBE	NBR (Nitrile) based.
REINFORCEMENT	One braid of high tensile steel wire.
COVER	NBR/PVC based. MSHA approved.
TEMPERATURE RANGE	-40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.
STANDARDS	Exceeds ISO 1436 1SN R1ATS. EN 853 1SN. SAE 100R1AT.
COUPLINGS	-4 to -20: MegaCrimp®; -24, -32: GlobalSpiral Plus.
TYPE APPROVALS	DNV, GL, LR, BV and ABS.
CHARACTERISTICS/BENEFITS	50% of SAE 100R1 bend radius at rated working pressure. Superior flex impulse performance: tested to 600,000 impulse cycles. G1 hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

OPTIONAL

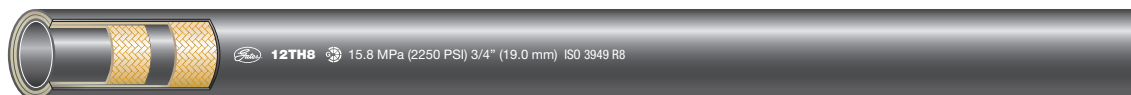


G1H: For high-temperature applications, Gates recommends the G1H hose range up to +135°C constant. Please refer to page 67.

HYDRAULIC HOSE TO EN / SAE STANDARD

THE WORLD OF HOSE

TH8



-size	↔		⊘		⌚		🌪️		📏	🏋️	📦
	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.61	15.5	5000	35.0	20000	140.0	50	18	4TH8
-6	10	3/8	0.76	19.1	4000	28.0	16000	112.0	65	31	6TH8
-8	12	1/2	0.87	22.1	3500	24.5	14000	98.0	100	34	8TH8
-12	19	3/4	1.13	28.7	2250	15.8	9000	63.2	165	38	12TH8
-16	25	1	1.45	36.8	2000	14.0	8000	56.0	250	57	16TH8

RECOMMENDED FOR High pressure hydraulic applications, especially material handling equipment with mast and pulley systems like forklifts, aerial lifting, hydraulic boom cranes and many others.

TUBE PA (Nylon) based.


REINFORCEMENT Two fibre braids.

COVER PU (Polyurethane) based. Black TH8 is perforated for use in general hydraulic and pneumatic service.

TEMPERATURE RANGE -53°C to +93°C. For water emulsions, etc. see Temperature Limits Table.

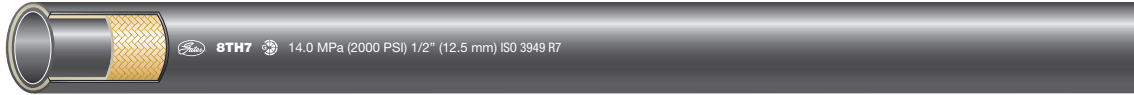
STANDARDS Exceeds ISO 3949 R8. EN 855 R8. SAE 100R8.

COUPLINGS MegaCrimp®.

OPTIONAL  TH8NC: Sizes -04, -06 and -08 are also available in a non-conductive version. TH8NC has an orange polyurethane cover and is non-perforated for applications requiring electrical non-conductivity. TH8NC meets the SAE 100R8 Electrical Conductivity Test.

HYDRAULIC HOSE TO EN / SAE STANDARD

TH7



-size	↔		⊘		⌚		🌪️		🔧	🏋️	📏
	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.50	12.7	2750	19.2	11000	76.8	30	8	4TH7S
-5	8	5/16	0.56	14.7	2500	17.5	10000	70.0	45	10	5TH7S
-6	10	3/8	0.64	16.4	2250	15.8	9000	63.2	50	14	6TH7S
-8	12	1/2	0.80	20.3	2000	14.0	8000	56.0	75	21	8TH7S
-12	19	3/4	1.05	26.6	1250	8.7	5000	34.8	130	29	12TH7
-16	25	1	1.32	33.4	1000	7.0	4000	28.0	250	40	16TH7

RECOMMENDED FOR

High pressure hydraulic applications, especially material handling equipment with mast and pulley systems like forklifts, aerial lifting, hydraulic boom cranes and many others.

TUBE

PA (Nylon) based.

REINFORCEMENT

-4 to -6: spiralled synthetic fibre; -8 to -12: one fibre braid.

COVER

PU (Polyurethane) based. Black TH7 is perforated for use in general hydraulic and pneumatic service.

TEMPERATURE RANGE

-53°C to +93°C. For water emulsions, etc. see Temperature Limits Table.

STANDARDS

Exceeds ISO 3949 R7. EN 855 R7. SAE 100R7.

COUPLINGS

MegaCrimp®.

OPTIONAL

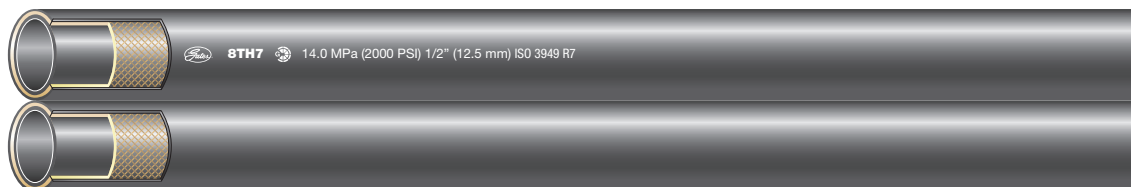


TH7NC: The complete range (-4 up to -16) is also available in a non-conductive version. TH7NC has an orange polyurethane cover and is non-perforated for applications requiring electrical non-conductivity. TH7NC meets the SAE 100R7 Electrical Conductivity Test.

HYDRAULIC HOSE TO EN / SAE STANDARD

THE WORLD OF HOSE

TH7DL



-size											REF.
	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	
-4	6	1/4	0.50	12.7	2750	19.2	11000	76.8	30	17	4TH7DL
-5	8	5/16	0.56	14.7	2500	17.5	10000	70.0	45	21	5TH7DL
-6	10	3/8	0.64	16.4	2250	15.8	9000	63.2	50	28	6TH7DL
-8	12	1/2	0.80	20.3	2000	14.0	8000	56.0	75	42	8TH7DL

RECOMMENDED FOR

High pressure hydraulic applications, especially material handling equipment with mast and pulley systems like forklifts, aerial lifting, hydraulic boom cranes and many others.

TUBE

PA (Nylon) based.

REINFORCEMENT

-4 to -6: spiralled synthetic fibre; -8 to -12: one fibre braid.

COVER

PU (Polyurethane) based. Black TH7DL is perforated for use in general hydraulic and pneumatic service.

TEMPERATURE RANGE

-53°C to +93°C. For water emulsions, etc. see Temperature Limits Table.

STANDARDS

Exceeds ISO 3949 R7. EN 855 R7. SAE 100R7.

COUPLINGS

MegaCrimp®.

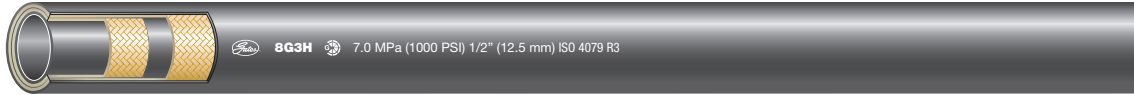
OPTIONAL



TH7DLNC: Sizes -04, -06 and -08 are also available in a non-conductive version. TH7DLNC has an orange polyurethane cover and is non-perforated for applications requiring electrical non-conductivity. TH7DLNC meets the SAE 100R7 Electrical Conductivity Test.

HYDRAULIC HOSE TO EN / SAE STANDARD

G3H



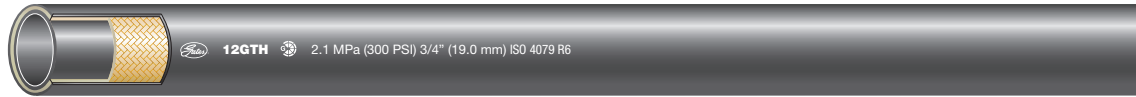
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-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	mm/Hg	kg/100m	REF.
-4	6	1/4	0.56	14.2	1250	8.8	5000	35.0	75	710	19	4G3H
-6	10	3/8	0.75	19.1	1125	7.9	4500	31.5	100	710	33	6G3H
-8	12	1/2	0.94	23.9	1000	7.0	4000	28.0	125	710	48	8G3H
-10	16	5/8	1.10	27.9	900	6.2	3600	24.8	140	710	57	10G3H
-12	19	3/4	1.25	31.8	750	5.2	3000	21.0	150	710	71	12G3H
-16	25	1	1.50	38.1	565	3.9	2260	15.8	200	510	92	16G3H
-20	31	1.1/4	1.75	44.5	375	2.6	1500	10.5	250	380	110	20G3H

RECOMMENDED FOR	High-temperature, low pressure hydraulic oil lines, anti-freeze solutions and water.
TUBE	NBR (Nitrile) based.
REINFORCEMENT	Two fibre braids.
COVER	CR (Chloroprene) based.
TEMPERATURE RANGE	-40°C to +135°C constant and +150°C intermittent. For water emulsions, etc. see Temperature Limits Table.
STANDARDS	Exceeds ISO 4079 R3. EN 854 R3. SAE 100R3.
COUPLINGS	-4 to -10: MegaCrimp®; for replacement of crimped assemblies with larger inner diameter we recommend to use ACR MegaTech®, see page 82.

HYDRAULIC HOSE TO EN / SAE STANDARD

THE WORLD OF HOSE

GTH



↔		○			⌚		🌸		📏		📊	📦
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	mm/Hg	kg/100m	REF.
-4	6	1/4	0.50	12.7	400	2.8	1600	11.2	65	710	13	4GTH
-5	8	5/16	0.56	14.3	400	2.8	1600	11.2	75	710	15	5GTH
-6	10	3/8	0.63	15.9	400	2.8	1600	11.2	75	710	17	6GTH
-8	12	1/2	0.78	19.8	400	2.8	1600	11.2	100	450	23	8GTH
-10	16	5/8	0.91	23.0	350	2.4	1400	9.6	125	380	28	10GTH
-12	19	3/4	1.06	26.9	300	2.1	1200	8.4	150	380	38	12GTH
-16	25	1	1.32	33.5	250	1.7	1000	6.9	165	250	47	16GTH

RECOMMENDED FOR

High-temperature, low pressure hydraulic oil lines, heavy-duty transmission oil cooler lines and glycol anti-freeze solutions.

TUBE

NBR (Nitrile) based.

REINFORCEMENT

One fibre braid.

COVER

CR (Chloroprene) based.

TEMPERATURE RANGE

-40°C to +135°C constant and +150°C intermittent. For water emulsions, etc. see Temperature Limits Table.

STANDARDS

Meets ISO 4079 R6 / EN 854 R6 / SAE 100R6 [-4 to -12].

COUPLINGS

MegaCrimp®.

HYDRAULIC HOSE TO EN / SAE STANDARD

GMV MEGAVAC®



↔		○			⌚		🌸		⌚		⚖️	📏
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	mm/Hg	kg/100m	REF.
-12	19	3/4	1.22	30.9	350	2.4	1400	9.6	65	635	62	12GMV
-16	25	1	1.45	36.9	300	2.1	1200	8.4	75	635	75	16GMV
-20	31	1.1/4	1.75	44.6	250	1.7	1000	6.8	100	635	92	20GMV
-24	38	1.1/2	1.95	49.53	162	1.1	648	4.4	130	635	106	24GMV
-32	51	2	2.47	62.73	112	0.8	448	3.2	150	635	170	32GMV
-40	63	2.1/2	3.02	76.7	68	0.5	272	2.0	180	635	207	40GMV
-48	76	3	3.51	89.2	62	0.4	248	1.7	230	635	243	48GMV
-56	89	3.1/2	4.01	101.9	56	0.4	224	1.5	250	635	268	56GMV
-64	102	4	4.51	114.6	56	0.4	224	1.5	300	635	305	64GMV

RECOMMENDED FOR	Petroleum and water based hydraulic fluids in suction lines or in low pressure return lines.
TUBE	NBR (Nitrile) based.
REINFORCEMENT	-12, -16, -20: fibre braid reinforced with helical spiral wire to prevent collapse; -24 to -64: spiralled fibre reinforced with helical spiral wire to prevent collapse.
COVER	CR (Chloroprene) based. MSHA approved.
TEMPERATURE RANGE	-40°C to +135°C constant and +150°C intermittent. For water emulsions, etc. see Temperature Limits Table.
STANDARDS	SAE 100R4.
COUPLINGS	-12 to -20: MegaCrimp®; -24, -32: GlobalSpiral Plus.
CHARACTERISTICS/BENEFITS	Half the bend radius of SAE 100R4. Flexible. Lightweight.

HYDRAULIC HOSE

SPECIAL HIGH / LOW TEMPERATURE

THE WORLD OF HOSE

EFG6KL



↔		⊘		⌚		🔥		📏		📊	
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-8	12	1/2	0.95	24.0	6000	42.0	24000	168.0	90	90	8EFG6KL
-10	16	5/8	1.09	27.6	6000	42.0	24000	168.0	100	115	10EFG6KL
-12	19	3/4	1.24	31.5	6000	42.0	24000	168.0	120	143	12EFG6KL
-16	25	1	1.53	38.9	6000	42.0	24000	168.0	150	192	16EFG6KL

RECOMMENDED FOR	Extremely high pressure and high impulse hydraulic applications at extremely low temperatures.
TUBE	NBR (Nitrile) based.
REINFORCEMENT	Four alternating layers of spiralled, high tensile steel wire.
COVER	CR (Chloroprene) based. MSHA approved.
TEMPERATURE RANGE	-57°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.
STANDARDS	Exceeds ISO 3862 R15. SAE 100R15.
COUPLINGS	GlobalSpiral.
CHARACTERISTICS/BENEFITS	40% of EN 856 4SP/4SH bend radius at rated working pressure. Extremely flexible. Superior flex impulse performance: tested to 1,000,000 impulse cycles at 50% of SAE 100R15 bend radii. Meets or exceeds performance requirements of EN 856 4SP / 4SH. EFG6KL hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

HYDRAULIC HOSE

SPECIAL HIGH / LOW TEMPERATURE

EFG5KL



↔		⊘		⌚		🔥		📏		📊		📦
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.	
-6	10	3/8	0.80	20.2	5000	35.0	20000	140.0	65	71	6EFG5KL	
-8	12	1/2	0.95	24.0	5000	35.0	20000	140.0	90	89	8EFG5KL	
-10	16	5/8	1.09	27.6	5000	35.0	20000	140.0	100	115	10EFG5KL	
-12	19	3/4	1.24	31.4	5000	35.0	20000	140.0	120	144	12EFG5KL	
-16	25	1	1.53	38.7	5000	35.0	20000	140.0	150	223	16EFG5KL	
-20	31	1.1/4	1.97	50.0	5000	35.0	20000	140.0	210	399	20EFG5KL	
-24	38	1.1/2	2.26	57.4	5000	35.0	20000	140.0	250	482	24EFG5KL	

RECOMMENDED FOR	Extremely high pressure and high impulse hydraulic applications at extremely low temperatures.
TUBE	NBR (Nitrile) based.
REINFORCEMENT	Four (six for -20 and -24) alternating layers of spiralled, high tensile steel wire.
COVER	CR (Chloroprene) based. MSHA approved.
TEMPERATURE RANGE	-57°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.
STANDARDS	Exceeds ISO 3862 R13. SAE 100R13.
COUPLINGS	GlobalSpiral.
CHARACTERISTICS/BENEFITS	40% of EN 856 4SP/4SH bend radius at rated working pressure. Extremely flexible. Superior flex impulse performance: tested to 1,000,000 impulse cycles at 50% of SAE 100R13 bend radii. Meets or exceeds performance requirements of EN 856 4SP. EFG5KL hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

HYDRAULIC HOSE

SPECIAL HIGH / LOW TEMPERATURE

THE WORLD OF HOSE

EFG4KL



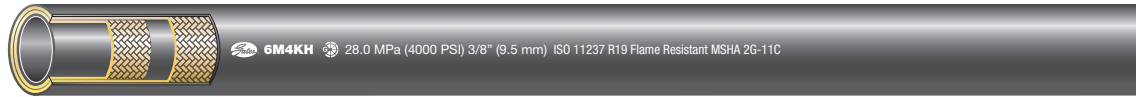
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-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-6	10	3/8	0.81	20.6	4000	28.0	16000	112.0	65	71	6EFG4KL
-8	12	1/2	0.95	24.0	4000	28.0	16000	112.0	90	89	8EFG4KL
-12	19	3/4	1.21	30.7	4000	28.0	16000	112.0	120	128	12EFG4KL
-16	25	1	1.49	37.8	4000	28.0	16000	112.0	150	188	16EFG4KL
-20	31	1.1/4	1.85	47.0	4000	28.0	16000	112.0	210	283	20EFG4KL

RECOMMENDED FOR	Extremely high pressure and high impulse hydraulic applications at extremely low temperatures.
TUBE	NBR (Nitrile) based.
REINFORCEMENT	Four alternating layers of spiralled, high tensile steel wire.
COVER	CR (Chloroprene) based. MSHA approved.
TEMPERATURE RANGE	-57°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.
STANDARDS	Exceeds ISO 3862 R12. SAE 100R12.
COUPLINGS	GlobalSpiral.
CHARACTERISTICS/BENEFITS	40% of EN 856 4SP bend radius at rated working pressure. Extremely flexible. Superior flex impulse performance: tested to 1,000,000 impulse cycles at 50% of SAE 100R12 bend radii. Meets or exceeds performance requirements of EN 856 4SP. EFG4KL hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

HYDRAULIC HOSE

SPECIAL HIGH / LOW TEMPERATURE

M4KH



-size	↔		⊘		⌚		🔥		🔧	🏋️	📏
	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.54	13.7	4000	28.0	16000	112.0	50	33	4M4KH
-6	10	3/8	0.69	17.5	4000	28.0	16000	112.0	65	46	6M4KH
-8	12	1/2	0.82	20.8	4000	28.0	16000	112.0	90	57	8M4KH
-10	16	5/8	0.98	25.0	4000	28.0	16000	112.0	100	82	10M4KH
-12	19	3/4	1.17	29.6	4000	28.0	16000	112.0	120	109	12M4KH

RECOMMENDED FOR	High pressure hydraulic applications. Easy to route and to install in tight areas.
TUBE	NBR (Nitrile) based.
REINFORCEMENT	Two braids of high tensile steel wire.
COVER	CR (Chloroprene) based. MSHA approved.
TEMPERATURE RANGE	-40°C to +121°C. For water emulsions, etc. see Temperature Limits Table.
STANDARDS	Exceeds ISO 11237 R19. SAE 100R19.
COUPLINGS	MegaCrimp®.
CHARACTERISTICS/BENEFITS	70% of EN 857 2SC and 50% of EN 853 2SN bend radius at rated working pressure. Alternative to spiral hoses in high pressure lines where flexibility is required. Superior flex impulse performance: tested to 600,000 impulse cycles. Meets or exceeds EN 857 2SC performance requirements. Lightweight. M4KH hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

OPTIONAL  M4KH-MTF: the complete range of M4KH is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard M4KH cover as per ISO 6945, superior ozone and weathering resistance.

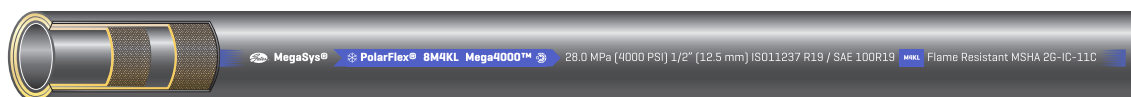
IMPORTANT  Please consult Gates' Product Application Engineers for use of MegaTuff™ hose in reverse bending applications.

HYDRAULIC HOSE

SPECIAL HIGH / LOW TEMPERATURE

THE WORLD OF HOSE

M4KL



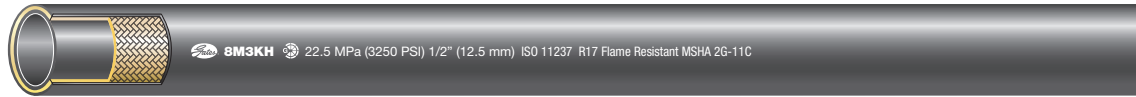
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-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.	
-4	6	1/4	0.55	14.0	4000	28.0	16000	112.0	50	30	4M4KL	
-5	8	5/16	0.60	15.2	4000	28.0	16000	112.0	55	34	5M4KL	
-6	10	3/8	0.70	17.7	4000	28.0	16000	112.0	65	43	6M4KL	
-8	12	1/2	0.82	20.7	4000	28.0	16000	112.0	90	52	8M4KL	
-10	16	5/8	0.99	25.0	4000	28.0	16000	112.0	100	73	10M4KL	
-12	19	3/4	1.17	29.6	4000	28.0	16000	112.0	120	100	12M4KL	

RECOMMENDED FOR	High pressure hydraulic applications at extremely low temperatures. Easy to route and to install in tight areas.
TUBE	NBR (Nitrile) based.
REINFORCEMENT	Two braids of high tensile wire.
COVER	NBR/PVC based. MSHA approved.
TEMPERATURE RANGE	-57°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.
STANDARDS	Exceeds ISO 11237 R19. SAE 100R19.
COUPLINGS	MegaCrimp®.
CHARACTERISTICS/BENEFITS	70% of EN 857 2SC and 50% of EN 853 2SN bend radius at rated working pressure. Alternative to spiral hoses in high pressure lines where flexibility is required. Meets or exceeds EN 857 2SC and EN 853 2SN performance requirements. Lightweight. M4KL hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

HYDRAULIC HOSE


SPECIAL HIGH / LOW TEMPERATURE

M3KH



↔		⊘		⌚		🌸		📏		🏋️	📦
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.48	12.2	3250	22.5	13000	90.0	50	19	4M3KH
-5	8	5/16	0.59	15.1	3250	22.5	13000	90.0	55	26	5M3KH
-6	10	3/8	0.63	16.0	3250	22.5	13000	90.0	65	31	6M3KH
-8	12	1/2	0.80	20.2	3250	22.5	13000	90.0	90	41	8M3KH
-10	16	5/8	0.99	25.2	3250	22.5	13000	90.0	100	73	10M3KH
-12	19	3/4	1.14	29.0	3250	22.5	13000	90.0	120	91	12M3KH
-16	25	1	1.48	37.7	3250	22.5	13000	90.0	150	155	16M3KH

- RECOMMENDED FOR** High pressure hydraulic applications. Easy to route and to install in tight areas.
- TUBE** NBR (Nitrile) based.
- REINFORCEMENT** -4 to -8: one braid of high tensile steel wire; -10 to -16: two braids of high tensile steel wire.
- COVER** CR (Chloroprene) based. MSHA approved.
- TEMPERATURE RANGE** -40°C to +121°C. For water emulsions, etc. see Temperature Limits Table.
- STANDARDS** Exceeds ISO 11237 R17. SAE 100R17.
- COUPLINGS** MegaCrimp®.
- CHARACTERISTICS/BENEFITS** 70% of EN 857 2SC and 50% of EN 853 2SN bend radius at rated working pressure.
Alternative to spiral hoses in high pressure lines where flexibility is required.
Superior flex impulse performance: tested to 600,000 impulse cycles.
Meets or exceeds EN 857 1SC/2SC performance requirements.
Lightweight.
M3KH hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

OPTIONAL  M3KH-MTF (except -5): the complete range of M3KH is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard M3KH cover as per ISO 6945, superior ozone and weathering resistance.

IMPORTANT  Please consult Gates' Product Application Engineers for use of MegaTuff™ hose in reverse bending applications.

HYDRAULIC HOSE

SPECIAL HIGH / LOW TEMPERATURE

THE WORLD OF HOSE

G2XH



↔		⊘		⌚		🔥		🔧		📊	📏
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.59	14.9	6000	42.0	24000	168.0	100	42	4G2XH
-6	10	3/8	0.74	18.8	5000	35.0	20000	132.0	130	54	6G2XH
-8	12	1/2	0.86	21.8	4250	29.0	17000	116.0	180	65	8G2XH
-10	16	5/8	0.99	25.1	3625	25.0	14500	100.0	200	77	10G2XH
-12	19	3/4	1.15	29.1	3100	21.5	12400	86.0	240	94	12G2XH
-16	25	1	1.48	37.6	2500	17.5	10000	70.0	300	141	16G2XH
-20	31	1.1/4	1.86	47.2	2250	15.5	9000	62.0	420	212	20G2XH
-24	38	1.1/2	2.15	54.6	1800	12.4	6000	42.0	500	207	24G2XH
-32	51	2	2.65	67.3	1500	10.3	5200	35.9	630	293	32G2XH

RECOMMENDED FOR

High-temperature, high pressure hydraulic applications such as engine compartments, foundries,...

TUBE

CPE (Chlorinated polyethylene) based.

REINFORCEMENT

Two braids of high tensile steel wire.

COVER

CSM (Chlorosulfonated polyethylene) based. Blue. MSHA approved.

TEMPERATURE RANGE

-40°C to +150°C. For water emulsions, etc. see Temperature Limits Table.

STANDARDS

Exceeds ISO 1436 2SN R2ATS. EN 853 2SN. SAE 100R2AT.

COUPLINGS

-4 to -20: MegaCrimp®; -24 to -32: GlobalSpiral Plus.

CHARACTERISTICS/BENEFITS

Superior flex impulse performance: tested to 600,000 impulse cycles.

G2XH hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids and phosphate esters.

HYDRAULIC HOSE

SPECIAL HIGH / LOW TEMPERATURE

G2H



↔			⊘		⌚		🔥		📏		📊
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-20	31	1.1/4	1.87	47.5	1825	12.5	7300	50.0	420	226	20G2H
-24	38	1.1/2	2.15	54.6	1300	9.0	5200	36.0	500	248	24G2H
-32	51	2	2.65	67.3	1175	8.0	4700	32.0	630	315	32G2H

RECOMMENDED FOR

High-temperature, high pressure hydraulic applications such as engine compartments, foundries,...

TUBE

NBR (Nitrile) based.

REINFORCEMENT

Two braids of high tensile steel wire.

COVER

CSM (Chlorosulfinated polyethylene) based. MSHA approved.

TEMPERATURE RANGE

-40°C to +135°C constant and +150°C intermittent. For water emulsions, etc. see Temperature Limits Table.

STANDARDS

Meets ISO 1436 2SN R2ATS / EN 853 2SN. Exceeds SAE 100R2AT.

COUPLINGS

-20: MegaCrimp®; -24 to -32: GlobalSpiral Plus.

CHARACTERISTICS/BENEFITS

Superior flex impulse performance: tested to 600,000 impulse cycles.

G2H hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

OPTIONAL



G2H-MTF: the complete range of G2H is also available with the Gates special MegaTuff™ cover which offers 300 times the abrasion resistance of the standard G2H cover as per ISO 6945, superior ozone and weathering resistance.

IMPORTANT



Please consult Gates' Product Application Engineers for use of MegaTuff™ hose in reverse bending applications.

HYDRAULIC HOSE

SPECIAL HIGH / LOW TEMPERATURE

THE WORLD OF HOSE

G2L



-size	↔		⊘		⌚		🔥		📏	📊	📦
	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.58	15.0	5800	40.0	23200	160.0	100	36	4G2L
-6	10	3/8	0.73	18.8	4800	33.0	19200	132.0	130	53	6G2L
-8	12	1/2	0.86	21.8	4000	27.5	16000	112.0	180	64	8G2L
-10	16	5/8	0.98	25.1	3625	25.0	14500	100.0	200	76	10G2L
-12	19	3/4	1.14	29.0	3100	21.5	12400	86.0	240	91	12G2L
-16	25	1	1.48	37.6	2400	16.5	9600	66.0	300	136	16G2L
-20	31	1.1/4	1.87	47.5	1825	12.5	7300	50.0	420	212	20G2L
-24	38	1.1/2	2.12	53.8	1300	9.0	5200	36.0	500	223	24G2L
-32	51	2	2.62	66.5	1175	8.0	4700	32.0	630	319	32G2L

RECOMMENDED FOR	High pressure hydraulic applications at extremely low temperatures.
TUBE	NBR (Nitrile) based.
REINFORCEMENT	Two braids of high tensile steel wire.
COVER	CR (Chloroprene) based. MSHA approved.
TEMPERATURE RANGE	-57°C to +100°C. For water emulsions, etc. see Temperature Limits Table.
STANDARDS	Exceeds ISO 1436 2SN R2ATS. EN 853 2SN. SAE 100R2AT.
COUPLINGS	-4 to -20: MegaCrimp®; -24 to -32: GlobalSpiral Plus.
CHARACTERISTICS/BENEFITS	<p>Unique low temperature tube for extended service life at extremely low temperatures.</p> <p>Superior flex impulse performance: tested to 600,000 impulse cycles.</p> <p>G2L hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.</p>

HYDRAULIC HOSE

SPECIAL HIGH / LOW TEMPERATURE

G1H



↔		⊘		⌚		🔥		📏		🏋️	📦
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-4	6	1/4	0.53	13.5	2750	19.2	11000	76.8	50	22	4G1H
-6	10	3/8	0.69	17.1	2250	15.7	9000	62.8	65	35	6G1H
-8	12	1/2	0.82	20.3	2000	14.0	8000	56.0	90	43	8G1H
-10	16	5/8	0.94	23.5	1500	10.5	6000	42.0	100	49	10G1H
-12	19	3/4	1.10	27.6	1250	8.7	5000	35.8	120	64	12G1H
-16	25	1	1.41	35.4	1000	7.0	4000	28.0	150	91	16G1H
-20	31	1.1/4	1.72	43.7	925	6.4	3700	25.6	210	128	20G1H
-24	38	1.1/2	1.96	49.8	725	5.0	2900	20.0	250	146	24G1H
-32	51	2	2.52	64.0	600	4.2	2400	16.8	315	207	32G1H

RECOMMENDED FOR	High-temperature, medium pressure hydraulic applications such as engine compartments, foundries,...
TUBE	NBR (Nitrile) based.
REINFORCEMENT	One braid of high tensile steel wire.
COVER	CSM (Chlorosulfonated polyethylene) based. MSHA approved.
TEMPERATURE RANGE	-40°C to +135°C constant and +150°C intermittent. For water emulsions, etc. see Temperature Limits Table.
STANDARDS	SAE 100R1.
COUPLINGS	-4 to -20: MegaCrimp®; -24 to -32: GlobalSpiral Plus.
CHARACTERISTICS/BENEFITS	50% of SAE 100R1 bend radius at rated working pressure. Superior flex impulse performance: tested to 600,000 impulse cycles.

THE WORLD OF HOSE
INTEGRATED FLUID POWER SOLUTIONS



ENGINE HOSE

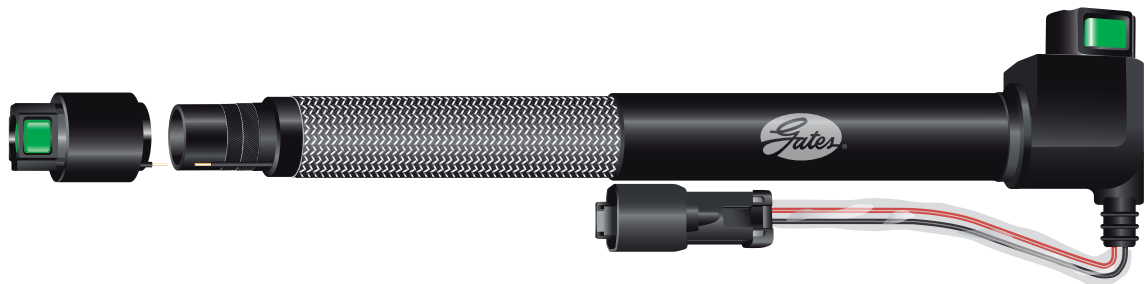
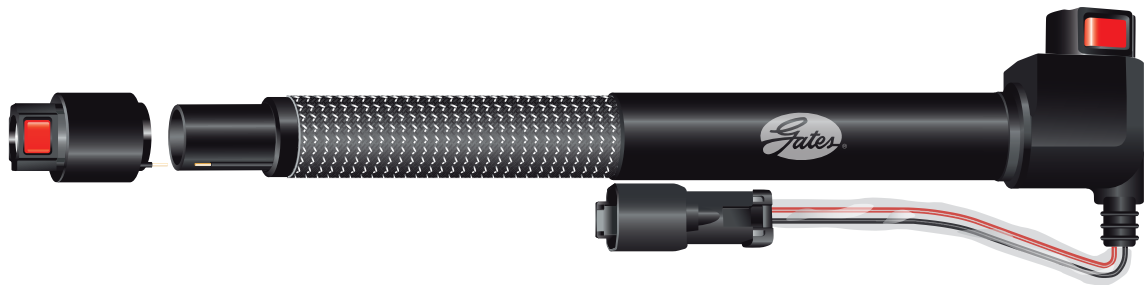


ENGINE HOSE SCR

THE WORLD OF HOSE

SELECTIVE CATALYTIC REDUCTION (SCR) / DIESEL EMISSION FLUID (DEF) HEATED LINES

Selective Catalytic Reduction is an aftertreatment technology based on a chemical reaction to convert Nitrogen Oxides (NOx) into water and harmless nitrogen.



SCR as part of Gates Emission Control Solutions:

- > A firm commitment to reduce air pollution and fuel consumption.
- > A dedication to help our customers to meet present and future emission standards.
- > A continued search for new and greener technologies.

ENGINE HOSE SCR

RECOMMENDED FOR	Transfer of Diesel Emission Fluids or urea solutions such as AdBlue® used in exhaust treatment of diesel engines equipped with Selective Catalytic Reduction (SCR) Technology.
CONSTRUCTION	PA (nylon) or p-EPDM rubber tube. Carbon fibre heat sleeve. Heated quick connect couplings. Dense closed cell EPDM insulation or thermoplastic convolute. Thermoplastic overmoulded ends.
TEMPERATURE RANGE	-40°C to +125°C.
STANDARDS	SAE J2044 quick connect couplings.
CHARACTERISTICS/BENEFITS	Electrical connections per customer specification. Patented technology. 12V or 24V power source. Carbon fibre sleeve provides fast, uniform heating across the entire assembly. Woven design provides redundancy in case of damage. The carbon fibre can be varied allowing for design flexibility in terms of length and heating capacity to meet end user needs. Lengths from 170 to 5000 mm have been produced. The overmoulded ends seal electronics providing excellent corrosion protection for weatherproof design.
OPTIONAL	The SCR heated lines may be fitted with a special heat sleeve to provide heat protection in demanding applications. Gates also offers solutions for urea transfer hoses (long lengths) and urea tank fill / vent hoses (formed or straight short lengths).

IMPORTANT



Please consult Gates' Product Application Engineers on minimum assembly length questions to avoid overheating and melting of the SCR assembly.

ENGINE HOSE COOLANT

THE WORLD OF HOSE

BLUE STRIPE™



↔		○			⌚		🌸		👤		📊	📏
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.	
-6	10	3/8	0.68	17.3	62	0.4	250	1.7	130	20	BLUE STRIPE 3/8"	
-8	12	1/2	0.82	20.8	75	0.5	300	2.1	155	26	BLUE STRIPE 1/2"	
-10	16	5/8	0.94	23.9	62	0.4	250	1.7	180	30	BLUE STRIPE 5/8"	
-12	19	3/4	1.06	26.9	50	0.3	200	1.4	195	35	BLUE STRIPE 3/4"	
-14	22	7/8	1.30	33.0	75	0.5	300	2.1	265	62	BLUE STRIPE 7/8"	
-16	25	1	1.34	34.0	44	0.3	175	1.2	230	49	BLUE STRIPE 1"	
-18	28	1.1/8	1.55	39.4	125	0.9	500	3.4	315	76	BLUE STRIPE 1.1/8"	
-20	31	1.1/4	1.67	42.4	100	0.7	400	2.8	340	81	BLUE STRIPE 1.1/4"	
-24	38	1.1/2	1.92	48.8	100	0.7	400	2.8	390	96	BLUE STRIPE 1.1/2"	
-28	44	1.3/4	2.17	55.1	75	0.5	300	2.1	445	109	BLUE STRIPE 1.3/4"	
-32	51	2	2.42	61.5	62	0.4	250	1.7	495	123	BLUE STRIPE 2"	
-36	57	2.1/4	2.67	67.8	62	0.4	250	1.7	545	137	BLUE STRIPE 2.1/4"	

RECOMMENDED FOR

High-temperature coolant, water and air applications. Suitable for OAT (organic additive technology) engine fluids.

TUBE

EPDM.

REINFORCEMENT

-4 to -12 and -16: 4230SB - aramid spiral; -14 and -18 to -36: 4175SC - nylon cord.

COVER

EPDM based.

TEMPERATURE RANGE

-40°C to +150°C.

STANDARDS

4230SB - normal duty heater hose to SAE 20R3 EC Class D-1.

4175SC - heavy duty radiator hose to SAE 20R1 EC Class D-1, standard wall

CHARACTERISTICS/BENEFITS

Premium engine hose.

Compounded to resist electro-chemical degradation, the leading cause of hose failure.

Wrapped cover on size 7/8" and as of size 1.1/8".

NOTE

Also available as customer-made curved hose to SAE 20R4 EC D-1 to fit specific applications and meeting customer specifications. Curved hose recommended for upper, lower, by-pass, heater and other coolant applications. Can be installed without buckling, bending out of shape or straining at the connections.

Can be used with PowerGrip® Shrink Band Clamps, made from a heat-sensitive thermoplastic with a memory to prevent over- or under-tightening. Retains dynamic tension and never needs retightening. Eliminates the risk for antifreeze leaks and ground water contamination. Can be installed with an ordinary heat gun.

IMPORTANT



Do not use for fuel or oil transfer applications.

ENGINE HOSE COOLANT

4230S

RECOMMENDED FOR

Engine coolant hose such as cab heater or oil cooler.

Also suitable for air, water, or oil.

CONSTRUCTION

NBR tube, synthetic fiber reinforcement, CR cover.

Straight hose specification, available in bulk or cut lengths.

TEMPERATURE RANGE

-40°C to +100°C.

STANDARDS

Meets SAE 20R3 Class B tube, Class C cover.

INTERNAL DIAMETER

Available in 3/8", 1/2", 5/8", 3/4", and 1" standard IDs.

CHARACTERISTICS/BENEFITS

Oil resistant.

Small diameters (heater hose) up to 1" ID.



4256LS/4256VT

RECOMMENDED FOR

Engine coolant hose such as cab heater or oil cooler.

Also suitable for air or water.

CONSTRUCTION

p-EPDM tube, aramid knit reinforcement, p-EPDM cover.

Curved hose specification, customised design.

TEMPERATURE RANGE

-40°C to +150°C.

STANDARDS

Meets SAE 20R3 EC Class D3 (from size 19/32" to 1") or SAE 20R4 EC Class D3 (from size 1.06" to 2.1/2").

INTERNAL DIAMETER

Available in 19/32" to 2.1/2" standard IDs.

CHARACTERISTICS/BENEFITS

High-temperature resistant.

Material used is p-EPDM.

Electrochemically resistant (ECR).

Small diameters (heater hose) up to 1" ID.

Compatible with DEF.

IMPORTANT

Do not use for fuel or oil transfer applications.



4280MH

RECOMMENDED FOR

Engine coolant hose such as cab heater or oil cooler.

Also suitable for air or water.

CONSTRUCTION

EPDM tube, synthetic knit reinforcement, EPDM cover.

Curved hose specification, customised design.

TEMPERATURE RANGE

-40°C to +125°C.

STANDARDS

Meets SAE 20R3 EC Class D1 (from size 1/4" to 7/8") or SAE 20R4 EC Class 1 (from size 0.74" to 4").

INTERNAL DIAMETER

Available in 1/4" to 4" standard IDs.

CHARACTERISTICS/BENEFITS

Price-by-performance.

Electrochemically resistant (ECR).

Small diameters (heater hose) up to 1" ID.

IMPORTANT

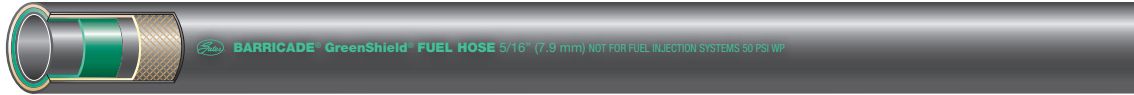
Do not use for fuel or oil transfer applications.



ENGINE HOSE FUEL

THE WORLD OF HOSE

4219BG BARRICADE® GREENSHIELD®



↔		○			⌚		🌿		🔧		⊙	📊	📏
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	mm/Hg	kg/100m	REF.	
-3	5	3/16	0.41	10.4	50	0.3	250	1.7	55	610	7	4219BG 3/16"	
-4	6	1/4	0.50	12.7	50	0.3	250	1.7	65	610	13	4219BG 1/4"	
-5	8	5/16	0.56	14.3	50	0.3	250	1.7	75	610	15	4219BG 5/16"	
-6	10	3/8	0.62	15.9	50	0.3	250	1.7	85	610	18	4219BG 3/8"	
-8	12	1/2	0.78	19.8	35	0.2	175	1.2	120	250	24	4219BG 1/2"	

RECOMMENDED FOR Recommended for carbureted engines in cars, light trucks, off-road vehicles and small engines on which a barrier fuel hose is required.

TUBE NBR (nitrile) based.

BARRIER Thermoplastic liner.

REINFORCEMENT Polyester fibre.

COVER NBR / PVC based.

TEMPERATURE RANGE -40 to +100°C for bio-diesel use (up to B100) and up to +125°C for non-bio-diesel use.

STANDARDS CARB small engine off-road (CARB certificate Q09-019A) - 15g/m²/day.
EPA Non-Road Fuel Lines (EPA Verify Family Name: GTSPLINEBG1) - 15g/m²/day.
Exceeds SAE J30R14 T1 specification.

CHARACTERISTICS/BENEFITS Permeation rate less than 15g/m²/day at +40°C.
For use with gasoline, gasoline / ethanol blends (E10, E15, E85), 100% methanol only (methanol blends are not recommended), diesel, diesel / bio-diesel blends, 100% bio-diesel.

NOTE Most fuel constructions are considered to not be electrically conductive unless specifically marked as such.

IMPORTANT



Do not submerge in fuel.

Do not use on pressure lines on fuel injection systems or cooling system applications.

Use Barricade® GreenShield® 4219BF hose for multi-port injection systems.

ENGINE HOSE FUEL

4219BF BARRICADE® GREENSHIELD® FUEL INJECTION



↔		○			⌚		🔥		🔧		⊙	🏋️	📏
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	mm/Hg	kg/100m	REF.	
-3	5	3/16	0.41	10.4	225	1.5	1125	7.8	55	610	7	4219BF 3/16"	
-4	6	1/4	0.50	12.7	225	1.5	1125	7.8	65	610	13	4219BF 1/4"	
-5	8	5/16	0.56	14.3	225	1.5	1125	7.8	75	610	15	4219BF 5/16"	
-6	10	3/8	0.62	15.9	225	1.5	1125	7.8	85	610	18	4219BF 3/8"	
-8	12	1/2	0.78	19.8	225	1.5	1125	7.8	140	250	24	4219BF 1/2"	

RECOMMENDED FOR

Any fuel injected engine application (1985 and newer) in cars, light trucks, off-road vehicles and small engines on which a barrier fuel hose is required.

TUBE

HNBR based.

BARRIER

Thermoplastic liner.

REINFORCEMENT

Aramid fibre.

COVER

CPE.

TEMPERATURE RANGE

-40°C to +135°C continuous service for bio-diesel use and up to +150°C intermittent service for non-bio-diesel use.

STANDARDS

CARB small engine off-road (CARB certificate Q09-019A) - 15g/m²/day.

EPA Non-Road Fuel Lines (EPA Verify Family Name: GTSPLINEBF1) - 15g/m²/day.

Exceeds SAE J30 R14 T2 (except kink) with SAE J30 R12 burst.

CHARACTERISTICS/BENEFITS

Permeation rate less than 15g/m²/day at +40°C.

For use with gasoline, gasoline / ethanol blends (E10, E15, E85), 100% methanol only (methanol blends are not recommended), diesel, diesel / bio-diesel blends, 100% bio-diesel.

NOTE

Most fuel constructions are considered to not be electrically conductive unless specifically marked as such.

IMPORTANT



Do not submerge in fuel.

ENGINE HOSE FUEL

THE WORLD OF HOSE

4219G



↔		○			⌚		🌿		🔄		○	🏋️	📏
-size	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	mm/Hg	kg/100m	REF.	
-3	5	3/16	0.41	10.4	50	0.3	250	1.7	80	610	10	4219G 3/16"	
-4	6	1/4	0.50	12.7	50	0.3	250	1.7	80	610	13	4219G 1/4"	
-5	8	5/16	0.56	14.2	50	0.3	250	1.7	80	610	15	4219G 5/16"	
-6	10	3/8	0.62	15.8	50	0.3	250	1.7	105	610	18	4219G 3/8"	
-8	12	1/2	0.78	19.8	35	0.2	175	1.2	130	250	24	4219G 1/2"	
-10	16	5/8	0.94	23.9	35	0.2	175	1.2	155	250	34	4219G 5/8"	
-12	19	3/4	1.13	28.6	35	0.2	175	1.2	180	250	48	4219G 3/4"	

RECOMMENDED FOR

Low pressure and return lines on fuel systems. Specially designed for fuel circuits (leaded and unleaded petrol, diesel) in passenger cars and industrial vehicles. It can also be used in evaporative emission control systems and as a vent line.

TUBE

NBR (Nitrile) based.

REINFORCEMENT

Synthetic high tensile textile.

COVER

NBR / PVC based.

TEMPERATURE RANGE

-40°C to +125°C.

STANDARDS

Exceeds the requirements of SAE 30R6 and SAE 30R7 specifications for fuel line hoses.

CHARACTERISTICS/BENEFITS

Also used for crankcase ventilation.

NOTE

Most fuel constructions are considered to not be electrically conductive unless specifically marked as such.

IMPORTANT



Not recommended for fuel injection systems.

Do not submerge in fuel.

ENGINE HOSE FUEL

3284A (RLA)

RECOMMENDED FOR

Fuel line from tank to engine.
Also suitable for low pressure hydraulic oil, engine oil, or air.



CONSTRUCTION

NBR tube, synthetic fiber reinforcement, NBR/PVC cover.
Straight hose specification, available in bulk or cut lengths.

TEMPERATURE RANGE

-40°C to +100°C.

STANDARDS

Meets SAE 30R2 Type 1 or Type 2 except OD and tolerance.
Burst, vacuum, and bend radius exceed SAE 30R2.

INTERNAL DIAMETER

Available in 3/16", 1/4", 5/16", 3/8", 0.510", 5/8", 3/4", and 1".

CHARACTERISTICS/BENEFITS

Higher pressure.

IMPORTANT

Do not use for in-tank, gaseous fuels, or biodiesel applications.

42780B

RECOMMENDED FOR

Engine oil and hydraulic suction applications.



CONSTRUCTION

NBR tube, aramid knit reinforcement, NBR/PVC cover.
Curved hose specification, customised design.

TEMPERATURE RANGE

-40°C to +125°C.

STANDARDS

Meets SAE 30R2 Type 1 except burst on the 1/2" and 1" sizes, and thickness.

INTERNAL DIAMETER

Available in 1/2" to 1.1/2" standard IDs.

CHARACTERISTICS/BENEFITS

Higher pressure.

IMPORTANT

Do not use for fuel injection or air applications.

4278CN

RECOMMENDED FOR

Engine oil, fuel filler, and hydraulic suction.
Also suitable for tank vent and crank case vent.



CONSTRUCTION

NBR tube, synthetic knit reinforcement, NBR/PVC cover.
Curved hose specification, customised design.

TEMPERATURE RANGE

-40°C to +125°C.

STANDARDS

Meets SAE 30R7 except the oxidised gasoline test, or SAE 30R6.

INTERNAL DIAMETER

Available in 3/16" to 3.5/8" standard IDs.

CHARACTERISTICS/BENEFITS

Price-by-performance.

IMPORTANT

Do not use for fuel injection or air intake applications.

ENGINE HOSE AIR INTAKE

THE WORLD OF HOSE

4171H



-size	↔		○		⌚		🌬️		🔧		⚖️	REF.
	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	mm/Hg	kg/100m	
-14	22	7/8	1.09	27.8	200	1.4	800	5.5	220	*	30	HIGH-TEMP AIR INTAKE 7/8"
-16	25	1	1.22	31.0	200	1.4	800	5.5	245	*	33	HIGH-TEMP AIR INTAKE 1"
-20	31	1.1/4	1.47	37.4	200	1.4	800	5.5	295	*	40	HIGH-TEMP AIR INTAKE 1.1/4"
-22	35	1.3/8	1.59	40.5	200	1.4	800	5.5	320	*	43	HIGH-TEMP AIR INTAKE 1.3/8"
-24	38	1.1/2	1.72	43.7	200	1.4	800	5.5	345	*	46	HIGH-TEMP AIR INTAKE 1.1/2"
-32	51	2	2.22	56.4	160	1.1	640	4.4	450	*	61	HIGH-TEMP AIR INTAKE 2"
-36	57	2.1/4	2.47	62.8	160	1.1	640	4.4	500	*	67	HIGH-TEMP AIR INTAKE 2.1/4"
-38	60	2.3/8	2.59	65.9	140	1.0	560	3.9	525	*	70	HIGH-TEMP AIR INTAKE 2.3/8"
-40	63	2.1/2	2.72	69.1	134	0.9	534	3.7	550	*	74	HIGH-TEMP AIR INTAKE 2.1/2"
-44	70	2.3/4	2.97	75.5	120	0.8	480	3.3	600	*	88	HIGH-TEMP AIR INTAKE 2.3/4"
-48	76	3	3.22	81.8	113	0.8	452	3.1	650	*	95	HIGH-TEMP AIR INTAKE 3"
-52	83	3.1/4	3.47	88.2	105	0.7	418	2.9	705	*	98	HIGH-TEMP AIR INTAKE 3.1/4"
-54	86	3.3/8	3.60	91.3	100	0.7	400	2.8	730	*	126	HIGH-TEMP AIR INTAKE 3.3/8"
-56	89	3.1/2	3.77	95.8	120	0.8	480	3.3	765	*	135	HIGH-TEMP AIR INTAKE 3.1/2"
-60	95	3.3/4	4.02	102.1	120	0.8	480	3.3	815	*	144	HIGH-TEMP AIR INTAKE 3.3/4"
-64	102	4	4.27	108.5	113	0.8	452	3.1	865	*	152	HIGH-TEMP AIR INTAKE 4"
-72	114	4.1/2	4.77	121.2	100	0.7	400	2.8	965	*	161	HIGH-TEMP AIR INTAKE 4.1/2"
-80	127	5	5.27	133.9	90	0.6	360	2.5	1070	*	177	HIGH-TEMP AIR INTAKE 5"

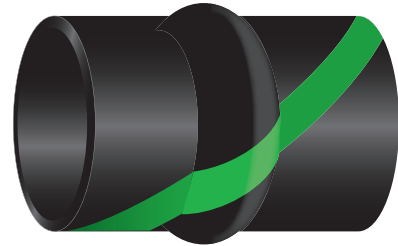
RECOMMENDED FOR	High-temperature turbo hose or connector.
TUBE	Orange silicone.
REINFORCEMENT	High-temperature fabric.
COVER	Orange silicone – wrapped appearance.
TEMPERATURE RANGE	-40°C to +288°C continuous service.

* No specification requirement

ENGINE HOSE AIR INTAKE

CHARGE AIR COOLER – COLD SIDE: 4177W (GREEN STRIPE®)

RECOMMENDED FOR	Vibration dampening connector on the air filter. Also suitable for coolant or cold-side charge air connections.
CONSTRUCTION	NBR tube, synthetic fabric reinforcement plies, CR cover with wrapped appearance. Hump hose specification, fixed lengths.
TEMPERATURE RANGE	-40°C to +100°C.
STANDARDS	Exceeds SAE 20R1 Class B tube, Class C cover.
INTERNAL DIAMETER	Available in 1.1/4" to 6" standard IDs.
CHARACTERISTICS/BENEFITS	Oil resistant.
IMPORTANT	Do not use for conveying fuel or oil. There is no vacuum rating specification.



AIR INTAKE HOSE: 4289N

RECOMMENDED FOR	Engine air intake with internal oil mist, exhaust fumes, or crank case fumes, or external oily environment. Also suitable for water suction.
CONSTRUCTION	CR tube with no reinforcement. Curved hose specification, customised design.
TEMPERATURE RANGE	-40°C to +100°C.
STANDARDS	Meets SAE J200 M3BC 707 E014 E034 F17 Z1 (8.28MPa Tb), or SAE J200 M3BC 707 A14 C12 E014 E034 F17.
INTERNAL DIAMETER	Available in 5/8" to 5" standard IDs.
CHARACTERISTICS/BENEFITS	All rubber. Oil resistant.
IMPORTANT	Do not use for conveying fuel.



AIR INTAKE HOSE: 4289E

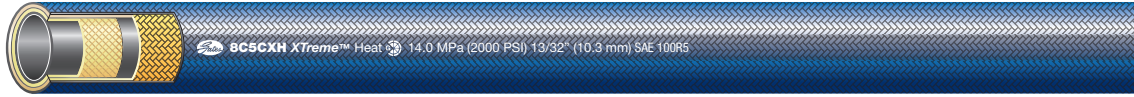
RECOMMENDED FOR	Engine air intake or air ducting. Also suitable for water suction.
CONSTRUCTION	EPDM tube with no reinforcement. Curved hose specification, customised design.
TEMPERATURE RANGE	-40°C to +135°C continuous with peaks of +150°C.
STANDARDS	Meets SAE J200 M3CA 707 A25 B35 C32 F17 Z1 (Duro 60-75), or SAE J200 M3CA 710 A25 B35 C32 EA14 F17 G21 Z1 (EPDM) Z2 (Duro 60-75).
INTERNAL DIAMETER	Available in 7/32" to 4.21" standard IDs.
CHARACTERISTICS/BENEFITS	All rubber.
IMPORTANT	Do not use for conveying fuel or oil.



ENGINE HOSE HOT OIL LINES

THE WORLD OF HOSE

C5CXH



-size	↔		⊘		⌚		🌸		🔧	🏋️	📏
	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	kg/100m	REF.
-5	6.3	1/4	0.58	14.7	3000	20.7	12000	82.7	85	28	5C5CXH
-6	8.0	5/16	0.68	17.3	2250	15.5	9000	62.1	100	33	6C5CXH
-8	11.0	13/32	0.77	19.6	2000	13.8	8000	55.2	115	37	8C5CXH
-10	12.5	1/2	0.92	23.4	1750	12.1	7000	48.3	140	57	10C5CXH
-12	16.0	5/8	1.08	27.4	1500	10.3	6000	41.4	165	66	12C5CXH
-16	22.2	7/8	1.23	31.2	800	5.5	3200	22.1	188	71	16C5CXH
-20	28.6	1.1/8	1.50	38.1	625	4.3	2500	17.2	229	77	20C5CXH

RECOMMENDED FOR

High-temperature lube oil lines for on-highway truck and bus, off-road construction and agricultural vehicles. Turbo charger oil supply. Air brake applications. Diesel fuel applications.

TUBE

CPE (Chlorinated polyethylene) based.

REINFORCEMENT

Braided high tensile wire and textiles.

COVER

Oil and mildew resistant polyester/textile braid. Blue.

TEMPERATURE RANGE

-40°C to +150°C for hot oil applications.

STANDARDS

Meets the requirements of SAE 100R5 for hydraulic applications, SAE 1405 hot oil circulation. DOT FMVSS-106-74 type All and SAE J1402 type All for air brake applications (-4 to -12).

COUPLINGS

-5, -6, -8, -16 and -20 : MegaCrimp® ; -10, -12 : GlobalSpiral.

CHARACTERISTICS/BENEFITS

Compatible with both petroleum and phosphate ester fluids.

Acceptable for use with oil and air for maximum application flexibility.

Has passed the tube fuel resistance requirements of SAE 30R2.

↔	Hose ID specifications (min-max) in mm		📏	Couplings for C5CXH hose sizes
	ISO 11237 2SC R16S	100 R5	REF.	
-5	7.7 – 8.5	6.4 – 7.2	5C5CXH	4G
-6	9.3 – 10.1	7.9 – 8.7	6C5CXH	5G
-8	12.3 – 13.5	10.3 – 11.1	8C5CXH	6G
-10	15.5 – 16.7	12.7 – 13.7	10C5CXH	8GS + 8GB1F-PS
-12	18.6 – 19.8	15.9 – 17.0	12C5CXH	10GS + 10GS1F-4
-16	25.0 – 26.4	22.2 – 23.3	16C5CXH	12G
-20	31.4 – 33.0	28.6 – 29.8	20C5CXH	16G

ENGINE HOSE HOT OIL LINES

MEGATECH®



-size	↔		○		⌚		🌀		👂	○	🏋️	📦
	DN	"	"	mm	PSI	MPa	PSI	MPa	mm	mm/Hg	kg/100m	REF.
-4	6	1/4	0.52	13.2	1000	7.0	4000	28.0	50	760	18	4MEGATECH1000
-6	10	3/8	0.66	16.8	1000	7.0	4000	28.0	65	760	28	6MEGATECH1000
-8	12	1/2	0.80	20.3	1000	7.0	4000	28.0	90	760	36	8MEGATECH1000
-10	16	5/8	0.93	23.6	1000	7.0	4000	28.0	100	760	45	10MEGATECH1000
-12	19	3/4	1.15	29.2	1000	7.0	4000	28.0	120	760	60	12MEGATECH1000
-16	25	1	1.37	34.8	1000	7.0	4000	28.0	150	760	71	16MEGATECH1000
-20	31	1.1/4	1.64	41.7	1000	7.0	4000	28.0	210	760	124	20MEGATECH1000
-24	38	1.1/2	1.95	49.5	500	3.5	2000	14.0	380	760	149	24MEGATECH500
-32	51	2	2.48	63.0	500	3.5	2000	14.0	460	760	205	32MEGATECH500
-40	63	2.1/2	2.97	75.4	500	3.5	2000	14.0	560	760	219	40MEGATECH500
-48	76	3	3.50	88.9	500	3.5	2000	14.0	610	760	274	48MEGATECH500

RECOMMENDED FOR

Pressurised hot oil return lines and air compressor lines, power steering, tilt cab cylinders, engine and transmission coolant and filtration lines.

TUBE

CPE (Chlorinated polyethylene) based.

REINFORCEMENT

One braid of high tensile steel wire.

COVER

Oil resistant textile braid, impregnated with synthetic rubber.

TEMPERATURE RANGE

-40°C to +150°C. Air: -40°C to +121°C. Phosphate ester fluids: -40°C to +100°C. For water emulsions, etc. see Temperature Limits Table.

STANDARDS

Meets the requirements of SAE J1405 performance specifications for use in high-temperature transmission oil systems and high-temperature lubrication oil systems using petroleum based oils.

-4 to -10: meets SAE J1402.

COUPLINGS

-4 to -20: MegaCrimp®; -24, -32: GlobalSpiral Plus.

CHARACTERISTICS/BENEFITS

Very good resistance to weathering and ozone.

MegaTech® is compatible with a variety of fluids such as hydraulic oil, phosphate esters, diesters.

IMPORTANT



Not recommended for gasoline or diesel fuel applications.

ENGINE HOSE OTHER

THE WORLD OF HOSE

WINDSHIELD WIPER/ VACUUM HOSE: 4040A

RECOMMENDED FOR

Windshield washer lines and engine vacuum lines.

Also suitable for coolant overflow or vent or pressure sensor tubing.

CONSTRUCTION

EPDM tube with no reinforcement.

Straight hose specification, available in bulk or cut lengths.

TEMPERATURE RANGE

-40°C to +125°C.

STANDARDS

Meets SAE J1037, SAE 942, SAE J200 M4CA710 A25 B35 C32 EA14 F19.

INTERNAL DIAMETER

Available in 7/64", 5/32", 7/32", 1/4", 5/16", and 3/8" standard IDs.

CHARACTERISTICS/BENEFITS

Tubing.

IMPORTANT

Do not use for conveying fuel or oil.



AIR BRAKE HOSE: TR500

RECOMMENDED FOR

Air brake hose, high-temperature pressurised oil return lines and rotary oil/air compressor lines, engine and transmission coolant lines and lube oil lines.

CONSTRUCTION

NBR based tube, steel wire reinforcement, synthetic rubber impregnated textile braided cover.

Straight hose specification, available in bulk or cut lengths.

TEMPERATURE RANGE

-40°C to +121°C.

STANDARDS

Meets or exceeds DOT FMVSS 106-74, SAE J1402 for 1/4", 3/8", 1/2", and 5/8".

INTERNAL DIAMETER

Available in 1/4", 3/8", 1/2", 5/8", 3/4", and 1" standard IDs.

CHARACTERISTICS/BENEFITS

High-temperature resistant.

Oil and mildew resistant cover.

Validated with MegaCrimp®.

IMPORTANT

Do not use for gasoline or diesel fuel applications.



REFRIGERANT HOSE: POLARSEAL® II

RECOMMENDED FOR

AC systems for light duty (truck & bus), and other heavy equipment.

Liquid and gaseous R134a and R12 refrigerants in automotive AC and industrial systems.

CONSTRUCTION

Synthetic elastomeric rubber tube, fabric braid reinforcement, synthetic elastomeric cover, nylon liner barrier.

Straight hose specification, available in bulk or cut lengths.

TEMPERATURE RANGE

-30°C to +125°C.

STANDARDS

Meets SAE J2064 Type C, Class 1.

INTERNAL DIAMETER

Available in 5/16", 13/32", 1/2", 5/8", and 7/8" standard IDs.

CHARACTERISTICS/BENEFITS

Designed to minimise permeation of R134a refrigerant.

Heat, moisture and ozone resistant cover.



THE WORLD OF HOSE
INTEGRATED FLUID POWER SOLUTIONS



INDUSTRIAL HOSE



EXPLANATION OF THE SYMBOLS USED IN THIS DOCUMENT

THE WORLD OF HOSE

APPLICATION ICONS



Agriculture



Granulates, Powders



Air & multi-purpose



Milk



Air Breathing



Nitrogen



Beer, Wine



Oil



Blower hose



Plaster, Concrete



Cement powder, Sand



Pressure wash & wash down



Chemicals



Radiator



Cold Water



Vapour



Food



Water, Sea Water, Waste
Water, Mud, Slurry

HOMOLOGATION ICONS



FDA (US Food and Drug Administration) is an agency within the Department of Health and Human Services and consists of centres and offices. The FDA is responsible for protecting the public health by assuring the safety, efficacy, and security of human and veterinary drugs, biological products, medical devices, our nation's food supply, cosmetics, and products that emit radiation.



The United States Pharmacopeia (USP) is a non-governmental, official public standards-setting authority for prescription and over-the-counter medicines and other healthcare products manufactured or sold in the United States. USP also sets widely recognised standards for food ingredients and dietary supplements. USP sets standards for the quality, purity, strength, and consistency of these products – critical to the public health.



A hose which is capable of discharge is a hose with a resistance of more than $10^3 \Omega/m$ and less than $10^6 \Omega/m$ and is indicated with an Ω icon. An object or device is capable of discharge if its surface resistance is between $10^4 \Omega$ and $10^9 \Omega$ measured at +23°C and 50% relative humidity. The characteristic of being able to discharge is also referred to as being "anti-static".



Animal Derived Ingredients (ADI) can cause the disease BSE and should therefore be avoided in products that may come into contact with products that are intended for human consumption. Hose liner material ingredients and process aids can contain ADI. GATES has therefore checked the compound portfolio and can now offer a broad selection of ADI free food and beverage hoses.

INDUSTRIAL HOSE CLEANING

THE WORLD OF HOSE

WATER BLAST



-size	mm	"	mm	MPa	MPa	mm	kg/100m	REF.
-6	10	3/8	21.2	100.0	250.0	230	88	6WB-XTFxLL
-8	13	1/2	24.6	100.0	250.0	230	141	8WB-XTFxLL
-12	19	3/4	34.5	100.0	250.0	230	228	12WB-XTFxLL

RECOMMENDED FOR

Ultra high pressure cold water cutting devices, blasting applications and cleaning equipment including high pressure stream of sea water to remove marine growth on off-shore oil rigs.

TUBE

NBR (Nitrile) based.

REINFORCEMENT

Four (six for -12) alternating layers of spiralled, high tensile wire.

COVER

XtraTuff™. MSHA approved.

TEMPERATURE RANGE

-20°C to +70°C.

STANDARDS

Gates proprietary.

COUPLINGS

WTB.

CHARACTERISTICS/BENEFITS

Outstanding resistance to weather, oil and abrasion.
Very flexible spiral wire design.

NOTE

Gates Water Blast hose is not to be used for impulse applications.

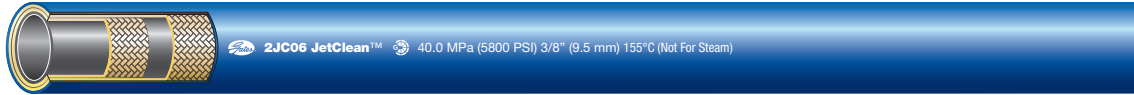
IMPORTANT



In line with international standards (EN 1829-2), each hose assembly should be subjected to a proof pressure hold test. The test pressure shall be 1.5 times the maximum allowable working pressure, the safety factor for burst pressure shall be at least 2.5 times the maximum allowable working pressure.

INDUSTRIAL HOSE CLEANING

JETCLEAN™ 2JC



-size	mm	"	mm	MPa	MPa	mm	kg/100m	REF.
-5	8	5/16	16.3	40.0	140.0	55	38	2JC05
-6	10	3/8	18.8	40.0	132.0	65	49	2JC06
-5	8	5/16	16.3	40.0	140.0	55	38	2JC05B
-6	10	3/8	18.8	40.0	132.0	65	49	2JC06B
-8	13	1/2	21.8	40.0	110.0	90	63	2JC08B
-6	10	3/8	18.8	40.0	132.0	65	49	2JC06G

RECOMMENDED FOR

Use on hot and cold water high pressure cleaning equipment where heavy-duty service is required. Suited for agricultural, sports, valet and maintenance service applications.

TUBE

NBR (Nitrile) based.

REINFORCEMENT

Two wire braid.

COVER

NBR/PVC based. Available in black, blue (B) and grey (G).

TEMPERATURE RANGE

-40°C to +155°C.

STANDARDS

Gates proprietary.

COUPLINGS

MegaCrimp®.

CHARACTERISTICS/BENEFITS

Grey and blue JetClean™ are suitable for use in hospitals, swimming pools and other applications where hygiene is of the utmost importance.

Premium temperature resistance up to +155°C.

IMPORTANT

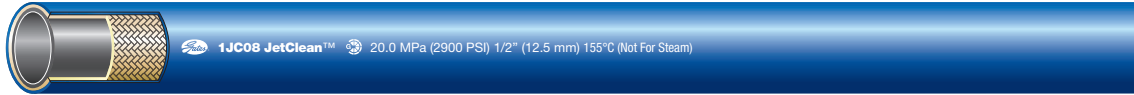


Not recommended for steam service.

INDUSTRIAL HOSE CLEANING

THE WORLD OF HOSE

JETCLEAN™ 1JC



-size	mm	"	mm	MPa	MPa	mm	kg/100m	REF.
-4	6	1/4	13.5	20.0	90.0	50	22	1JC04
-5	8	5/16	15.1	20.0	86.0	55	25	1JC05
-6	10	3/8	17.1	20.0	72.0	65	32	1JC06
-5	8	5/16	15.1	20.0	86.0	55	25	1JC05B
-6	10	3/8	17.1	20.0	72.0	65	32	1JC06B
-8	13	1/2	20.3	20.0	64.0	90	41	1JC08B
-6	10	3/8	17.1	20.0	72.0	65	32	1JC06G
-8	13	1/2	20.3	20.0	64.0	90	41	1JC08G

RECOMMENDED FOR

Use on hot and cold water high pressure cleaning equipment where heavy-duty service is required. Suited for agricultural, sports, valet and maintenance service applications.

TUBE

NBR (Nitrile) based.

REINFORCEMENT

One wire braid.

COVER

NBR/PVC based. Available in black, blue (B) and grey (G).

TEMPERATURE RANGE

-40°C to +155°C.

STANDARDS

Gates proprietary.

COUPLINGS

MegaCrimp®.

CHARACTERISTICS/BENEFITS

Grey and blue JetClean™ are suitable for use in hospitals, swimming pools and other applications where hygiene is of the utmost importance.

Premium temperature resistance up to +155°C.

IMPORTANT



Not recommended for steam service.

INDUSTRIAL HOSE CLEANING

CLEAN MASTER™ PRESSURE WASH FORMERLY POWERCLEAN



↔		○	○	⌚	🌪️	👤	📊	📏
-size	mm	"	mm	MPa	MPa	mm	kg/100m	REF.
-4	6	1/4	13.5	24.0	90.0	100	23	CLEAN MASTER PRESSURE WASH 3500 1WB 1/4"
-5	8	5/16	15.1	25.0	100.0	130	23	CLEAN MASTER PRESSURE WASH 3600 1WB 5/16"
-5	8	5/16	16.3	35.0	132.0	130	40	CLEAN MASTER PRESSURE WASH 5000 2WB 5/16"
-6	10	3/8	17.2	21.0	84.0	130	33	CLEAN MASTER PRESSURE WASH 3000 1WB 3/8"
-6	10	3/8	18.8	35.0	132.0	130	52	CLEAN MASTER PRESSURE WASH 5000 2WB 3/8"
-5	8	5/16	15.1	25.0	100.0	130	23	CLEAN MASTER PRESSURE WASH 3600B 1WB 5/16"
-5	8	5/16	16.3	35.0	132.0	130	40	CLEAN MASTER PRESSURE WASH 5000B 2WB 5/16"
-6	10	3/8	17.2	21.0	84.0	130	33	CLEAN MASTER PRESSURE WASH 3000B 1WB 3/8"
-6	10	3/8	18.8	35.0	132.0	130	52	CLEAN MASTER PRESSURE WASH 5000B 2WB 3/8"
-8	13	1/2	20.3	17.5	64.0	180	43	CLEAN MASTER PRESSURE WASH 2500B 1WB 1/2"
-8	13	1/2	21.8	28.0	110.0	180	62	CLEAN MASTER PRESSURE WASH 4000B 2WB 1/2"
-6	10	3/8	17.2	21.0	84.0	130	33	CLEAN MASTER PRESSURE WASH 3000G 1WB 3/8"
-6	10	3/8	18.8	35.0	132.0	130	52	CLEAN MASTER PRESSURE WASH 5000G 2WB 3/8"
-8	13	1/2	20.3	17.5	64.0	180	43	CLEAN MASTER PRESSURE WASH 2500G 1WB 1/2"

RECOMMENDED FOR

Use on pressure cleaning equipment. Specially compounded to handle high pressure water service.

TUBE

Type C (Nitrile), black.

REINFORCEMENT

One or two braid of high tensile steel wire.

COVER

C2 (Modified Nitrile). Available in black, blue (B) and grey (G). Blue and grey covers are nonmarking.

TEMPERATURE RANGE

-40°C to +121°C.

STANDARDS

Gates proprietary.

COUPLINGS

MegaCrimp®.

BRANDING TRANSFER LABEL

GATES® CLEAN MASTER™ PRESSURE WASH (2500-5000) NOT FOR STEAM SERVICE MADE IN U.S.A.

IMPORTANT



Not recommended for steam service.

INDUSTRIAL HOSE PETROLEUM TRANSFER

THE WORLD OF HOSE

PREMIUM™ FUEL MASTER D



mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
19	31	6.0	2.0	8.0	133	60	40	FUEL MAS D 19mm x CL40
19	31	6.0	2.0	8.0	133	60	61*	FUEL MAS D 19mm x CL61
25	37	6.0	2.0	8.0	175	80	40	FUEL MAS D 25mm x CL40
25	37	6.0	2.0	8.0	175	80	61*	FUEL MAS D 25mm x CL61
32	44	6.0	2.0	8.0	224	90	40	FUEL MAS D 32mm x CL40
32	44	6.0	2.0	8.0	224	90	61*	FUEL MAS D 32mm x CL61
38	51	6.5	2.0	8.0	266	120	40	FUEL MAS D 38mm x CL40
38	51	6.5	2.0	8.0	266	120	61*	FUEL MAS D 38mm x CL61
50	66	8.0	2.0	8.0	350	160	40	FUEL MAS D 50mm x CL40
51	67	8.0	2.0	8.0	357	160	40	FUEL MAS D 51mm x CL40
51	67	8.0	2.0	8.0	357	160	61*	FUEL MAS D 51mm x CL61
63	79	8.0	2.0	8.0	441	210	40	FUEL MAS D 63mm x CL40
75	91	8.0	2.0	8.0	525	240	40	FUEL MAS D 75mm x CL40
76	92	8.0	2.0	8.0	532	250	40	FUEL MAS D 76mm x CL40
76	92	8.0	2.0	8.0	532	250	61*	FUEL MAS D 76mm x CL61
100	116	8.0	2.0	8.0	700	340	40	FUEL MAS D 100mm x CL40
102	118	8.0	2.0	8.0	714	350	40	FUEL MAS D 102mm x CL40
102	118	8.0	2.0	8.0	714	350	61*	FUEL MAS D 102mm x CL61
152	172	10.0	2.0	8.0	1050	680	40	FUEL MAS D 152mm x CL40

* 61 m coils are made to order

RECOMMENDED FOR

Premium pressure hose (D) for mineral oil products and fuel mixtures with a maximum 50% aromatic content. Ideal for offshore/onshore transfer applications involving discharge service for diesel oils and other similar petroleum products where an extremely lightweight, flexible hose with a high rated working pressure and a small minimum bend radius is required.

TUBE

Black NBR1 rubber, smooth and oil resistant.

REINFORCEMENT

High tensile synthetic textile cord, two crossing anti-static wires.

COVER

CR rubber, black, smooth with cloth impression, good resistance to weather and abrasion, chemical and oil resistance.

TEMPERATURE RANGE

-30°C to +90°C.

BURST PRESSURE

4 x WP.

ELECTRICALLY CONDUCTIVE

$R < 10^6 \text{ Ohm}$.

STANDARDS

EN 12115, EN 1761.

BRANDING TRANSFER LABEL

PREMIUM™ FUEL MASTER D - EN 12115/ EN 1761 FUEL TRANSFER 20 BAR D










BRANDING EMBOSSED LABEL

GATES PREMIUM™ FUEL MASTER D - EN 12115/ EN 1761 NBR1 - DIAM mm - 20 BAR - D - Q - year

INDUSTRIAL HOSE PETROLEUM TRANSFER

PREMIUM™ FUEL MASTER SD



								
mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
19	31	6.0	1.6	6.4	105	70	40	FUEL MAS SD 19mm x CL40
19	31	6.0	1.6	6.4	105	70	61*	FUEL MAS SD 19mm x CL61
25	37	6.0	1.6	6.4	138	80	40	FUEL MAS SD 25mm x CL40
25	37	6.0	1.6	6.4	138	80	61*	FUEL MAS SD 25mm x CL61
32	44	6.0	1.6	6.4	176	110	40	FUEL MAS SD 32mm x CL40
32	44	6.0	1.6	6.4	176	110	61*	FUEL MAS SD 32mm x CL61
38	51	6.5	1.6	6.4	209	130	40	FUEL MAS SD 38mm x CL40
38	51	6.5	1.6	6.4	209	130	61*	FUEL MAS SD 38mm x CL61
50	66	8.0	1.6	6.4	275	230	40	FUEL MAS SD 50mm x CL40
51	67	8.0	1.6	6.4	281	230	40	FUEL MAS SD 51mm x CL40
51	67	8.0	1.6	6.4	281	230	61*	FUEL MAS SD 51mm x CL61
63	79	8.0	1.6	6.4	347	290	40	FUEL MAS SD 63mm x CL40
75	91	8.0	1.6	6.4	413	330	40	FUEL MAS SD 75mm x CL40
76	92	8.0	1.6	6.4	418	330	40	FUEL MAS SD 76mm x CL40
76	92	8.0	1.6	6.4	418	330	61*	FUEL MAS SD 76mm x CL61
100	116	8.0	1.6	6.4	550	440	40	FUEL MAS SD 100mm x CL40
102	118	8.0	1.6	6.4	561	450	40	FUEL MAS SD 102mm x CL40
102	118	8.0	1.6	6.4	561	450	61*	FUEL MAS SD 102mm x CL61
127	147	10.0	1.6	6.4	688	690	40	FUEL MAS SD 127mm x CL40
152	174	11.0	1.6	6.4	825	960	40	FUEL MAS SD 152mm x CL40

* 61 m coils are made to order ** Vacuum resistance up to -0.9 bar

RECOMMENDED FOR

Premium vacuum and pressure hose (SD) for mineral oil products and fuel mixtures with maximum 50% aromatic content. Ideal for offshore/onshore transfer applications involving suction and discharge service for diesel oils and other similar petroleum products where an extremely lightweight, hard wall, flexible hose with a high rated working pressure and a small minimum bend radius is required.

TUBE

Black NBR1 rubber, smooth and oil resistance.

REINFORCEMENT

High tensile synthetic textile cord, steel wire helix and two crossing anti-static wires.

COVER

CR rubber, black, smooth with cloth impression, good resistance to weather and abrasion, chemical and oil resistance.

TEMPERATURE RANGE

-30°C to +90°C.

BURST PRESSURE

4 x WP.

ELECTRICALLY CONDUCTIVE

$R < 10^6$ Ohm.

STANDARDS

EN 12115, EN 1761.

BRANDING TRANSFER LABEL

PREMIUM™ FUEL MASTER SD - EN 12115/ EN 1761 – FUEL TRANSFER 16 BAR Q

BRANDING EMBOSSED LABEL










GATES PREMIUM™ FUEL MASTER SD - EN 12115/ EN 1761 – NBR 1 - DIAM mm - 16 BAR - Q - Q - year

INDUSTRIAL HOSE PETROLEUM TRANSFER

THE WORLD OF HOSE

ESSENTIAL™ OIL MASTER SD



								
mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
19	29	5.0	1.0	3.0	95	50	40	OIL MAS SD 19mm x CL40
25	35	5.0	1.0	3.0	125	60	40	OIL MAS SD 25mm x CL40
32	42	5.0	1.0	3.0	160	90	40	OIL MAS SD 32mm x CL40
38	48	5.0	1.0	3.0	190	100	40	OIL MAS SD 38mm x CL40
50	60	5.0	1.0	3.0	250	140	40	OIL MAS SD 50mm x CL40
65	77	6.0	1.0	3.0	325	230	40	OIL MAS SD 65mm x CL40
75	88	6.5	1.0	3.0	375	270	40	OIL MAS SD 75mm x CL40
100	114	7.0	1.0	3.0	500	390	40	OIL MAS SD 100mm x CL40
125	141	8.0	1.0	3.0	625	600	40	OIL MAS SD 125mm x CL40
152	168	8.0	1.0	3.0	750	790	40	OIL MAS SD 152mm x CL40

** Vacuum resistance up to -0.9 bar

RECOMMENDED FOR

Vacuum and pressure hose (SD) for transfer of fuel oil and other petroleum based products in home delivery, commercial and industrial service or in low pressure return lines. Transfer of refined fuels (commercial gasoline and diesel fuel), oils and other petroleum products. Ideal for oilfield service truck use. Service life of transfer hoses can be extended by draining hoses after use. Max 50% aromatic content.

TUBE

Black NBR rubber, smooth and oil resistant.

REINFORCEMENT

High tensile synthetic textile cord, steel wire helix, two crossing anti-static wires.

COVER

CR rubber, black, smooth with cloth impression, good resistance to weather and abrasion, chemical and oil resistance.

TEMPERATURE RANGE

-30°C to +100°C.

BURST PRESSURE

> 30 bar.

ELECTRICALLY CONDUCTIVE

R < 10⁶ Ohm.

BRANDING TRANSFER LABEL

ESSENTIAL™ OIL MASTER SD - 10 BAR Ω

INDUSTRIAL HOSE PETROLEUM TRANSFER

ESSENTIAL™ OIL MASTER LITE SD



mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
19	29	5.0	1.0	3.0	95	50	40	OIL MAS Lite SD 19mm x CL40
25	35	5.0	1.0	3.0	125	60	40	OIL MAS Lite SD 25mm x CL40
32	42	5.0	1.0	3.0	160	90	40	OIL MAS Lite SD 32mm x CL40
38	48	5.0	1.0	3.0	190	100	40	OIL MAS Lite SD 38mm x CL40
51	61	5.0	1.0	3.0	255	140	40	OIL MAS Lite SD 51mm x CL40
65	77	6.0	1.0	3.0	325	230	40	OIL MAS Lite SD 65mm x CL40
76	88	6.0	1.0	3.0	380	270	40	OIL MAS Lite SD 76mm x CL40
90	104	7.0	1.0	3.0	450	350	40	OIL MAS Lite SD 90mm x CL40
100	114	7.0	1.0	3.0	500	390	40	OIL MAS Lite SD 100mm x CL40
127	143	8.0	1.0	3.0	635	610	40	OIL MAS Lite SD 127mm x CL40
152	168	8.0	1.0	3.0	760	790	40	OIL MAS Lite SD 152mm x CL40

** Vacuum resistance up to -0.9 bar

RECOMMENDED FOR

Very flexible corrugated vacuum and pressure hose (SD) for transfer of fuel oil and other petroleum based products in home delivery, commercial and industrial service or in low pressure return lines. Transfer of refined fuels (commercial gasoline and diesel fuel), oils and other petroleum products. Ideal for oilfield service truck use. Service life of transfer hoses can be extended by draining hoses after use. Max 50% aromatic content.

TUBE

Black NBR rubber, smooth and oil resistant.

REINFORCEMENT

High tensile synthetic textile cord, steel wire helix and two crossing anti-static wires.

COVER

CR rubber, black, corrugated with cloth impression, good resistance to weather and abrasion, chemical and oil resistance.

TEMPERATURE RANGE

-30°C to 100°C.

BURST PRESSURE

> 30 bar.

ELECTRICALLY CONDUCTIVE

R < 10⁶ Ohm.

COUPLINGS

-12 to -20: MegaCrimp®; -24: GlobalSpiral Plus.

BRANDING TRANSFER LABEL

ESSENTIAL™ OIL MASTER LITE SD - 10 BAR Ω

INDUSTRIAL HOSE PETROLEUM TRANSFER

THE WORLD OF HOSE

ESSENTIAL™ REEL MASTER D











mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
25	35	5.0	1.6	4.8	175	70	61	REEL MAS D 25mm x CL61
32	43	5.5	1.6	4.8	224	80	61	REEL MAS D 32mm x CL61
35	46	5.5	1.6	4.8	245	90	61	REEL MAS D 35mm x CL61
38	50	6.0	1.6	4.8	266	110	61	REEL MAS D 38mm x CL61
40	52	6.0	1.6	4.8	280	110	61	REEL MAS D 40mm x CL61
51	65	7.0	1.6	4.8	357	190	61	REEL MAS D 51mm x CL61

RECOMMENDED FOR	Pressure domestic fuel reel hose for tank trucks and oil delivery in heavy duty reeling applications. Also suitable for tank cleaning.
TUBE	Black NBR rubber, smooth and oil resistant.
REINFORCEMENT	High tensile synthetic textile cord and two crossing anti-static wires.
COVER	CR rubber, black, smooth with cloth impression, good resistance to weather and abrasion, chemical and oil resistance.
TEMPERATURE RANGE	-30°C to +70°C.
BURST PRESSURE	48 bar.
ELECTRICALLY CONDUCTIVE	$R < 10^6$ Ohm.
STANDARDS	EN 1360, EN 1761.
BRANDING TRANSFER LABEL	ESSENTIAL™ REEL MASTER D - 16 BAR Ω

INDUSTRIAL HOSE PETROLEUM TRANSFER

ESSENTIAL™ BUNKER MASTER D



								
mm	mm	mm	MPa	MPa	kg/100m	m	REF.	
76	94	9.0	1.6	4.8	532	300	40	BUNKER MAS D 76mm x CL40
102	120	9.0	1.6	4.8	714	400	40	BUNKER MAS D 102mm x CL40
127	145	9.0	1.6	4.8	889	490	40	BUNKER MAS D 127mm x CL40
152	170	9.0	1.6	4.8	1064	500	40	BUNKER MAS D 152mm x CL40
203	223	10.0	1.6	4.8	1421	850	40	BUNKER MAS D 203mm x CL40
254	276	11.0	1.6	4.8	1778	1150	40	BUNKER MAS D 254mm x CL40









RECOMMENDED FOR	Ship-to-shore oil bunker delivery hose for crude oil and liquid petroleum products with a maximum of 50% aromatic content, for tankers and bunkering vessels.
TUBE	Black NBR rubber, smooth and oil resistant.
REINFORCEMENT	High tensile synthetic textile cord, two crossing anti-static wires.
COVER	CR rubber, black, smooth with cloth impression, good resistance to weather and abrasion, chemical and oil resistance.
TEMPERATURE RANGE	-30°C to +90°C.
BURST PRESSURE	48 bar.
ELECTRICALLY CONDUCTIVE	R < 10 ⁶ Ohm.
BRANDING TRANSFER LABEL	ESSENTIAL™ BUNKER MASTER D - 16 BAR Ω

INDUSTRIAL HOSE PETROLEUM TRANSFER

THE WORLD OF HOSE

PREMIUM™ TAR MASTER SD



							
mm	mm	mm	MPa	MPa	kg/100m	m	REF.
25	39	7.0	1.8	7.2	175	40	TAR MAS SD 25mm x CL40
32	47	7.5	1.8	7.2	224	40	TAR MAS SD 32mm x CL40
38	54	8.0	1.8	7.2	266	40	TAR MAS SD 38mm x CL40
51	67	8.0	1.8	7.2	357	40	TAR MAS SD 51mm x CL40
63	81	9.0	1.4	5.6	441	40	TAR MAS SD 63mm x CL40
76	95	9.5	1.4	5.6	532	40	TAR MAS SD 76mm x CL40
102	123	10.5	1.4	5.6	714	40	TAR MAS SD 102mm x CL40









** Vacuum resistance up to -0.9 bar

RECOMMENDED FOR	Premium hose designed for the bulk transfer and delivery of hot petroleum products, such as tar, asphalt, and oil. This hose is designed for suction and discharge.
TUBE	Acrylic rubber with outstanding resistance to hot oil.
REINFORCEMENT	High tensile synthetic textile cord, steel wire helix, static wire.
COVER	CR based rubber, black, smooth with cloth impression, good resistance to weather and abrasion, chemical and oil resistance.
TEMPERATURE RANGE	-30°C to +160°C, intermittent up to +180°C.
BURST PRESSURE	4 x WP.
ELECTRICALLY CONDUCTIVE	R < 10 ⁶ Ohm.
BRANDING TRANSFER LABEL	PREMIUM™ TAR MASTER SD - HOT TAR & ASPHALT Ø

INDUSTRIAL HOSE STEAM

PREMIUM™ STEAM MASTER



								
mm	mm	mm	MPa	MPa	kg/100m	m	REF.	
13	25	6.0	1.8	18.0	91	50	40	STEAM MAS 13mm x CL40
16	30	7.0	1.8	18.0	112	70	40	STEAM MAS 16mm x CL40
19	33	7.0	1.8	18.0	133	80	40	STEAM MAS 19mm x CL40
25	40	7.5	1.8	18.0	175	110	40	STEAM MAS 25mm x CL40
32	48	8.0	1.8	18.0	224	150	40	STEAM MAS 32mm x CL40
38	54	8.0	1.8	18.0	266	180	40	STEAM MAS 38mm x CL40
51	67	8.0	1.8	18.0	357	230	40	STEAM MAS 51mm x CL40









RECOMMENDED FOR	Premium steam hose for the transport of pressurised saturated steam at +210°C up to a max. 18 bar working pressure or pressurised hot water.
TUBE	Black EPDM, smooth, conductive.
REINFORCEMENT	Two high tensile steel braids.
COVER	EPDM rubber, smooth, black, all sizes are pinpricked. Extremely weather resistant cover.
TEMPERATURE RANGE	-40°C to +210°C.
BURST PRESSURE	180 bar.
ELECTRICALLY CONDUCTIVE	$R < 10^6 \text{ Ohm}$.
STANDARDS	EN ISO 6134:2005-2A.
BRANDING TRANSFER LABEL	PREMIUM™ STEAM MASTER - EN ISO 6134:2005-2A STEAM 18 BAR 210°C Q - DRAIN AFTER USE
BRANDING EMBOSSED LABEL	GATES PREMIUM™ STEAM MASTER - EN ISO 6134:2005-2A STEAM 18 BAR - DIAM mm - Q - Q - year

INDUSTRIAL HOSE STEAM

THE WORLD OF HOSE

PREMIUM™ STEAM MASTER RED












								
mm	mm	mm	MPa	MPa	kg/100m	m	REF.	
13	25	6.0	1.8	18.0	91	50	40	STEAM MAS RED 13mm x CL40
16	30	7.0	1.8	18.0	112	70	40	STEAM MAS RED 16mm x CL40
19	33	7.0	1.8	18.0	133	80	40	STEAM MAS RED 19mm x CL40
25	40	7.5	1.8	18.0	175	110	40	STEAM MAS RED 25mm x CL40
32	48	8.0	1.8	18.0	224	150	40	STEAM MAS RED 32mm x CL40
38	54	8.0	1.8	18.0	266	180	40	STEAM MAS RED 38mm x CL40
51	67	8.0	1.8	18.0	357	230	40	STEAM MAS RED 51mm x CL40

RECOMMENDED FOR	Premium steam hose for the transport of pressurised saturated steam at +210°C up to a max. 18 bar working pressure or pressurised hot water.
TUBE	Black EPDM, smooth, conductive.
REINFORCEMENT	Two high tensile steel braids.
COVER	EPDM rubber, smooth, red, all sizes are pinpricked. Extremely weather resistant cover.
TEMPERATURE RANGE	-40°C to +210°C.
BURST PRESSURE	180 bar.
ELECTRICALLY CONDUCTIVE	Liner R < 10 ⁶ Ohm.
STANDARDS	EN ISO 6134:2005-2A.
BRANDING TRANSFER LABEL	PREMIUM™ STEAM MASTER RED - EN ISO 6134:2005-2A STEAM 18 BAR 210°C - DRAIN AFTER USE
BRANDING EMBOSSED LABEL	GATES PREMIUM™ STEAM MASTER RED - EN ISO 6134:2005-2A STEAM 18 BAR - DIAM mm - Q - year

INDUSTRIAL HOSE STEAM

PREMIUM™ HEATER MASTER



			 steam	 water					
mm	mm	mm	MPa	MPa	MPa	kg/100m	m	REF.	
13	25	6.0	0.6	2.0	6.0	91	50	40	HEATER MAS 13mm x CL40
16	30	7.0	0.6	2.0	6.0	112	60	40	HEATER MAS 16mm x CL40
19	33	7.0	0.6	2.0	6.0	133	80	40	HEATER MAS 19mm x CL40
25	40	7.5	0.6	2.0	6.0	175	90	40	HEATER MAS 25mm x CL40
32	48	8.0	0.6	2.0	6.0	224	120	40	HEATER MAS 32mm x CL40
38	54	8.0	0.6	2.0	6.0	266	140	40	HEATER MAS 38mm x CL40
51	67	8.0	0.6	2.0	6.0	357	180	40	HEATER MAS 51mm x CL40










RECOMMENDED FOR	Premium hot water (20 bar up to +90°C) delivery and steam hose up to +164°C, 6 bar working pressure in general industrial applications.
TUBE	Black EPDM, smooth.
REINFORCEMENT	High tensile textile cord.
COVER	EPDM rubber, smooth, black. Extremely weather resistant cover.
TEMPERATURE RANGE	-20°C to +164°C.
BURST PRESSURE	60 bar.
ELECTRICALLY CONDUCTIVE	$R < 10^6$ Ohm.
STANDARDS	Exceeds BS 5122/A2.
BRANDING TRANSFER LABEL	PREMIUM™ HEATER MASTER - STEAM OPEN SYSTEM 6 BAR 164°C Ω

INDUSTRIAL HOSE ACID-CHEMICAL

THE WORLD OF HOSE

PREMIUM™ CHEM MASTER XLPE SD



								
mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
19	31	6.0	1.6	4.8	95	70	40	CHEM MAS XLPE SD 19mm x CL40
25	37	6.0	1.6	4.8	125	80	40	CHEM MAS XLPE SD 25mm x CL40
32	44	6.0	1.6	4.8	160	100	40	CHEM MAS XLPE SD 32mm x CL40
38	51	6.5	1.6	4.8	190	120	40	CHEM MAS XLPE SD 38mm x CL40
50	66	8.0	1.6	4.8	250	210	40	CHEM MAS XLPE SD 50mm x CL40
51	67	8.0	1.6	4.8	255	220	40	CHEM MAS XLPE SD 51mm x CL40
65	81	8.0	1.6	4.8	325	260	40	CHEM MAS XLPE SD 65mm x CL40
75	91	8.0	1.6	4.8	375	310	40	CHEM MAS XLPE SD 75mm x CL40
76	92	8.0	1.6	4.8	380	310	40	CHEM MAS XLPE SD 76mm x CL40
100	116	8.0	1.6	4.8	500	410	40	CHEM MAS XLPE SD 100mm x CL40

** Vacuum resistance up to -0.9 bar

RECOMMENDED FOR

Premium hose for tank truck, barge, ship, or storage tank transfer applications of a variety of chemical products. The hose contains a wire helix for full suction capability, as well as for routing hoses through tight bends. A heavy duty suction and discharge hose (SD) for use with various acids and chemicals.

TUBE

XLPE, black smooth.

REINFORCEMENT

High tensile synthetic textile cord, steel wire helix and crossing anti-static wires.

COVER

EPDM rubber, smooth, green. Extremely weather resistant cover.

TEMPERATURE RANGE

-20°C to +65°C.

BURST PRESSURE

> 48 bar.










BRANDING TRANSFER LABEL

PREMIUM™ CHEM MASTER XLPE SD – CHEMICAL TRANSFER 16 BAR

INDUSTRIAL HOSE ACID-CHEMICAL

PREMIUM™ CHEM MASTER EPDM D



								
mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
13	25	6.0	1.6	6.4	91	50	40	CHEM MAS EPDM D 13mm x CL40
19	31	6.0	1.6	6.4	133	60	40	CHEM MAS EPDM D 19mm x CL40
22	34	6.0	1.6	6.4	154	70	40	CHEM MAS EPDM D 22mm x CL40
25	37	6.0	1.6	6.4	175	70	40	CHEM MAS EPDM D 25mm x CL40
32	44	6.0	1.6	6.4	224	90	40	CHEM MAS EPDM D 32mm x CL40
38	51	6.5	1.6	6.4	266	120	40	CHEM MAS EPDM D 38mm x CL40
50	66	8.0	1.6	6.4	350	180	40	CHEM MAS EPDM D 50mm x CL40
51	67	8.0	1.6	6.4	357	180	40	CHEM MAS EPDM D 51mm x CL40
63	79	8.0	1.6	6.4	441	220	40	CHEM MAS EPDM D 63mm x CL40
75	91	8.0	1.6	6.4	525	260	40	CHEM MAS EPDM D 75mm x CL40
76	92	8.0	1.6	6.4	532	270	40	CHEM MAS EPDM D 76mm x CL40
100	116	8.0	1.6	6.4	700	350	40	CHEM MAS EPDM D 100mm x CL40
102	118	8.0	1.6	6.4	714	350	40	CHEM MAS EPDM D 101.5mm x CL40

RECOMMENDED FOR

Premium delivery hose (D) for handling a variety of chemical products such as acids, alkalis, esters and ketones with a medium or low concentration. Tank truck, barge, ship, or storage tank transfer of a variety of mild chemical products.

TUBE

Black EPDM, smooth, conductive.

REINFORCEMENT

High tensile synthetic textile cord with crossing anti-static wires.

COVER

CSM rubber, black, superior resistance to weather and abrasion, excellent chemical and oil resistance.

TEMPERATURE RANGE

-40°C to +95°C.

BURST PRESSURE

4 x WP.

ELECTRICALLY CONDUCTIVE

$R < 10^6$ Ohm.

STANDARDS

EN 12115.

BRANDING TRANSFER LABEL

PREMIUM™ CHEM MASTER EPDM D - EN 12115 CHEMICAL TRANSFER 16 BAR Ω

BRANDING EMBOSSED LABEL










GATES PREMIUM™ CHEM MASTER EPDM D - EN 12115 - EPDM - DIAM .. - 16 BAR - Ω - Q - year

INDUSTRIAL HOSE ACID-CHEMICAL

THE WORLD OF HOSE

PREMIUM™ CHEM MASTER EPDM SD



								
mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
19	31	6.0	1.6	6.4	95	70	40	CHEM MAS EPDM SD 19mm x CL40
25	37	6.0	1.6	6.4	125	90	40	CHEM MAS EPDM SD 25mm x CL40
32	44	6.0	1.6	6.4	160	100	40	CHEM MAS EPDM SD 32mm x CL40
38	51	6.5	1.6	6.4	190	130	40	CHEM MAS EPDM SD 38mm x CL40
50	66	8.0	1.6	6.4	250	220	40	CHEM MAS EPDM SD 50mm x CL40
51	67	8.0	1.6	6.4	255	220	40	CHEM MAS EPDM SD 51mm x CL40
63	79	8.0	1.6	6.4	315	280	40	CHEM MAS EPDM SD 63mm x CL40
75	91	8.0	1.6	6.4	375	320	40	CHEM MAS EPDM SD 75mm x CL40
76	92	8.0	1.6	6.4	380	330	40	CHEM MAS EPDM SD 76mm x CL40
100	116	8.0	1.6	6.4	500	430	40	CHEM MAS EPDM SD 100mm x CL40
102	118	8.0	1.6	6.4	508	430	40	CHEM MAS EPDM SD 101.5mm x CL40
152	174	11.0	1.6	6.4	750	900	40	CHEM MAS EPDM SD 150mm x CL40

** Vacuum resistance up to -0.9 bar

RECOMMENDED FOR

Premium suction and discharge hose (SD) for handling a variety of chemical products such as acids, alkalis, esters and ketones with a medium or low concentration. Tank truck, barge, ship, or storage tank transfer of a variety of mild chemical products.

TUBE

Black EPDM, smooth, conductive.

REINFORCEMENT

High tensile synthetic textile cord, steel wire helix with crossing anti-static wires.

COVER

CSM rubber, black, superior resistance to weather and abrasion, excellent chemical and oil resistance.

TEMPERATURE RANGE

-40°C to +95°C.

BURST PRESSURE

4 x WP.

ELECTRICALLY CONDUCTIVE

$R < 10^6 \text{ Ohm}$.

STANDARDS

EN 12115.

BRANDING TRANSFER LABEL

PREMIUM™ CHEM MASTER EPDM SD - EN 12115 CHEMICAL TRANSFER 16 BAR Ω










BRANDING EMBOSSED LABEL

GATES PREMIUM™ CHEM MASTER EPDM SD - EN 12115 - EPDM - DIAM .. - 16 BAR - Ω - Q - year

INDUSTRIAL HOSE ACID-CHEMICAL

PREMIUM™ CHEM MASTER UHMWPE SD



								
mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
13	23	5.0	1.6	6.4	65	40	40	CHEM MAS UHMWPE SD 13mm x CL40
19	31	6.0	1.6	6.4	95	70	40	CHEM MAS UHMWPE SD 19mm x CL40
25	37	6.0	1.6	6.4	125	80	40	CHEM MAS UHMWPE SD 25mm x CL40
32	44	6.0	1.6	6.4	160	100	40	CHEM MAS UHMWPE SD 32mm x CL40
38	51	6.5	1.6	6.4	190	120	40	CHEM MAS UHMWPE SD 38mm x CL40
50	66	8.0	1.6	6.4	250	210	40	CHEM MAS UHMWPE SD 50mm x CL40
51	67	8.0	1.6	6.4	255	220	40	CHEM MAS UHMWPE SD 51mm x CL40
63	79	8.0	1.6	6.4	315	260	40	CHEM MAS UHMWPE SD 63mm x CL40
75	91	8.0	1.6	6.4	375	310	40	CHEM MAS UHMWPE SD 75mm x CL40
100	116	8.0	1.6	6.4	500	410	40	CHEM MAS UHMWPE SD 100mm x CL40
102	118	8.0	1.6	6.4	508	420	40	CHEM MAS UHMWPE SD 101.5mm x CL40

** Vacuum resistance up to -0.9 bar

RECOMMENDED FOR

Very universal suction and discharge hose (SD) capable of handling a wide spectrum of corrosive chemicals and acids. Tank truck, barge, ship, or storage tank transfer of a variety of chemical products. The hose contains a wire helix for full suction capability.

TUBE

UHMWPE, black, smooth and conductive.

REINFORCEMENT

High tensile synthetic textile cord, steel wire helix and crossing anti-static wires.

COVER

CSM rubber, black, superior resistance to weather and abrasion, excellent chemical and oil resistance.

TEMPERATURE RANGE

-35°C to +100°C, suitable for steam at +130°C with intermittent usage.

BURST PRESSURE

4 x WP.

ELECTRICALLY CONDUCTIVE

$R < 10^6$ Ohm.

STANDARDS

EN 12115.

BRANDING TRANSFER LABEL

PREMIUM™ CHEM MASTER UHMWPE SD - EN12115 CHEMICAL TRANSFER 16 BAR Q

BRANDING EMBOSSED LABEL

GATES PREMIUM™ CHEM MASTER UHMWPE SD - EN 12115 - UHMWPE - DIAM .. - 16 BAR - Q - year









INDUSTRIAL HOSE

ACID-CHEMICAL

THE WORLD OF HOSE

CHEM MASTER™ XTREME™ FEP (125-200) SD FORMERLY STALLION® HOSE



								
mm	mm	mm	MPa	MPa	kg/100m	m	REF.	
19	33	6.9	1.3	5.5	102	80	30.5	CHEM MAS XTRM FEP SD 3/4"
25	40	7.1	1.3	5.5	127	100	30.5	CHEM MAS XTRM FEP SD 1"
38	52	7.0	1.3	5.5	203	140	30.5	CHEM MAS XTRM FEP SD 1.1/2"
51	65	7.0	1.3	5.5	229	180	30.5	CHEM MAS XTRM FEP SD 2"
64	78	7.3	1.3	5.5	305	220	30.5	CHEM MAS XTRM FEP SD 2.1/2"
76	91	7.5	1.3	5.5	457	270	30.5	CHEM MAS XTRM FEP SD 3"
102	118	8.4	1.3	5.5	610	410	30.5	CHEM MAS XTRM FEP SD 4"

** Vacuum resistance up to -0.9 bar

RECOMMENDED FOR

Tank truck, barge, ship, or storage tank transfer of a variety of chemical products. With wire helix for full suction capability. The tube stock (Teflon* or Neoflon**) has excellent chemical resistance and is backed by Gates Gatron™ for flex fatigue safety at the coupling. Designed for easy cleaning in a bath containing 10% (NaOH) @ +100°C. Cleaning in place (CIP) methods may be used. Applications include most basic chemicals which are building blocks for numerous chemicals used in a variety of industries. Compatible with commercially available Bio-Diesel fuels up to B-100.

TUBE

Type T (FEP) Teflon* or Neoflon**, white. Backed with Gatron™ (Modified XLPE).

REINFORCEMENT

Synthetic, high tensile textile with steel wire helix.

COVER

Type P (EPDM), blue corrugated with orange spiral stripe.

TEMPERATURE RANGE

-40°C to +149°C normal service. Designed to withstand fluid temperatures to +149°C, however the rating is dependent on the specific chemical conveyed.

BURST PRESSURE

55 bar.

BRANDING TRANSFER LABEL

Continuous transfer label. Example: "GATES® CHEM MASTER™ XTREME™ FEP (125-200)SD U.S. PAT. NO. 5,647,400 ACID-CHEMICAL SUCTION/DISCHARGE 200 PSI (1.38MPa) WP MADE IN U.S.A." For your safety: Use Permanent Fittings Only

IMPORTANT



Use of Damaged Hose Could be Hazardous.










* Teflon® is a Registered Trademark of DuPont.

** Neoflon® is a Registered Trademark of Daikin.

INDUSTRIAL HOSE ACID-CHEMICAL

CHEM MASTER™ PAINT SPRAY FORMERLY 77B PAINT SPRAY AND CHEMICAL



								
mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
6	13	3.4	3.5	13.8	76	13	182.9-243.8m	CHEM MAS PAINT SPRAY 1/4"
8	15	3.6	3.5	13.8	76	16	182.9-243.8m	CHEM MAS PAINT SPRAY 5/16"
10	17	3.8	3.5	13.8	76	21	182.9-243.8m	CHEM MAS PAINT SPRAY 3/8"
13	22	4.7	5.2	20.7	127	34	182.9-243.8m	CHEM MAS PAINT SPRAY 1/2"
19	30	5.2	5.2	20.7	152	52	91.44-121.9m	CHEM MAS PAINT SPRAY 3/4"

RECOMMENDED FOR

Paint spray applications, as well as transfer of petroleum based products (aliphatic, aromatic and chlorinated hydrocarbon such as Toluene, Xylene, Benzene, gasoline and carbon tetrachloride). Compatible with commercially available Bio-Diesel fuels up to B-100.

TUBE

Type Z (special flexible nylon 11), clear.

REINFORCEMENT

Synthetic, high tensile textile cord.

COVER

Type A (neoprene), black.

TEMPERATURE RANGE

-40°C to +66°C continuous service.

BURST PRESSURE

> 138 bar.

BRANDING TRANSFER LABEL

GATES® CHEM MASTER™ PAINT SPRAY (500-750) 3/8" (9.5MM) 500 PSI (3.45MPa) WP MADE IN U.S.A.

NOTE

Contact Gates when conveying chemicals above +49°C.

IMPORTANT












Not recommended for acids or use in high pressure paint spray applications requiring a static conductive hose.

INDUSTRIAL HOSE FOOD & BEVERAGE

THE WORLD OF HOSE

PREMIUM™ DAIRY MASTER SD



								
mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
32	44	6.0	1.0	3.0	160	100	40	DAIRY MAS SD 32mm x CL40
38	50	6.0	1.0	3.0	190	120	40	DAIRY MAS SD 38mm x CL40
40	52	6.0	1.0	3.0	200	130	40	DAIRY MAS SD 40mm x CL40
45	59	7.0	1.0	3.0	225	150	40	DAIRY MAS SD 45mm x CL40
51	65	7.0	1.0	3.0	255	200	40	DAIRY MAS SD 51mm x CL40
63	77	7.0	1.0	3.0	315	240	40	DAIRY MAS SD 63mm x CL40
76	90	7.0	1.0	3.0	380	310	40	DAIRY MAS SD 76mm x CL40
102	118	8.0	1.0	3.0	510	480	40	DAIRY MAS SD 102mm x CL40

** Vacuum resistance up to -0.9 bar

RECOMMENDED FOR

Premium vacuum and pressure hose (SD) for food products. Tank truck, barge, ship, or storage tank transfer of a variety of food products such as animal fat, vegetable oil and other edible oils requiring an FDA sanitary hose. Also suitable for ice cream and other dairy products.

TUBE

NBR based white food quality rubber, resistant to animal fat and vegetable oils.

REINFORCEMENT

Synthetic, high tensile textile with steel wire helix.

COVER

NBR based rubber, blue, resistant to animal fat and vegetable oils.

TEMPERATURE RANGE

-30°C to +90°C, intermittent up to +130°C / 30 minutes for cleaning.

BURST PRESSURE

> 30 bar.

STANDARDS

FDA, animal derived ingredient free.










BRANDING TRANSFER LABEL

PREMIUM™ DAIRY MASTER SD - FOOD 10 BAR

INDUSTRIAL HOSE FOOD & BEVERAGE

PREMIUM™ DAIRY MASTER LITE SD



								
mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
32	43	5.5	1.0	3.0	88	87	40	DAIRY MAS lite SD 32mm x CL40
38	49	5.5	1.0	3.0	104	101	40	DAIRY MAS lite SD 38mm x CL40
40	51	5.5	1.0	3.0	110	105	40	DAIRY MAS lite SD 40mm x CL40
45	56	5.5	1.0	3.0	124	120	40	DAIRY MAS lite SD 45mm x CL40
51	63	6.0	1.0	3.0	140	145	40	DAIRY MAS lite SD 51mm x CL40
63	76	6.5	1.0	3.0	173	182	40	DAIRY MAS lite SD 63mm x CL40
76	89	6.5	1.0	3.0	209	216	40	DAIRY MAS lite SD 76mm x CL40
102	116	7.0	1.0	3.0	306	351	40	DAIRY MAS lite SD 102mm x CL40

** Vacuum resistance up to -0.9 bar

RECOMMENDED FOR

Very flexible corrugated vacuum and pressure hose (SD) for food products. Tank truck, barge, ship, or storage tank transfer of a variety of food products such as animal fat, vegetable oil and other edible oils requiring an FDA sanitary hose. Also suitable for ice cream and other dairy products.

TUBE

NBR based white food quality rubber, resistant to animal fat and vegetable oils.

REINFORCEMENT

Synthetic, high tensile textile with steel wire helix.

COVER

NBR based rubber, blue, corrugated and resistant to animal fat and vegetable oils.

TEMPERATURE RANGE

-30°C to +90°C, intermittent up to +130°C / 30 minutes for cleaning.

BURST PRESSURE

> 30 bar.

STANDARDS

FDA, animal derived ingredient free.

BRANDING TRANSFER LABEL










PREMIUM™ DAIRY MASTER LITE SD - FOOD 10 BAR

INDUSTRIAL HOSE FOOD & BEVERAGE

THE WORLD OF HOSE

PREMIUM™ WASHDOWN MASTER












								
mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
10	18	4.0	0.6	6.0	70	20	40	WASHDOWN MAS 10mm x CL40
13	23	5.0	0.6	6.0	91	40	40	WASHDOWN MAS 13mm x CL40
16	26	5.0	0.6	6.0	112	40	40	WASHDOWN MAS 16mm x CL40
19	31	6.0	0.6	6.0	133	60	40	WASHDOWN MAS 19mm x CL40
25	37	6.0	0.6	6.0	175	70	40	WASHDOWN MAS 25mm x CL40
32	45	6.5	0.6	6.0	224	90	40	WASHDOWN MAS 32mm x CL40
38	52	7.0	0.6	6.0	266	120	40	WASHDOWN MAS 38mm x CL40
51	65	7.0	0.6	6.0	357	150	40	WASHDOWN MAS 51mm x CL40

RECOMMENDED FOR	Premium hot water and open steam system washdown hose for the food and dairy industry. Used for paper mill, food handling or processing plant washdown service requiring a hose with a non-marking cover.
TUBE	EPDM based rubber, white, smooth.
REINFORCEMENT	High tensile textile cords.
COVER	EPDM based rubber, blue.
TEMPERATURE RANGE	-30°C to +164°C.
BURST PRESSURE	> 60 bar.
STANDARDS	FDA, animal derived ingredient free.
BRANDING TRANSFER LABEL	PREMIUM™ WASHDOWN MASTER - FDA 6 BAR – STEAM OPEN SYSTEM

INDUSTRIAL HOSE FOOD & BEVERAGE

PREMIUM™ MILK MASTER SD



								
mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
38	48	5.0	0.6	1.8	190	100	40	MILK MAS SD 38mm x CL40
40	50	5.0	0.6	1.8	200	100	40	MILK MAS SD 40mm x CL40
45	55	5.0	0.6	1.8	225	110	40	MILK MAS SD 45mm x CL40
51	62	5.5	0.6	1.8	255	150	40	MILK MAS SD 51mm x CL40
63	75	6.0	0.6	1.8	315	190	40	MILK MAS SD 63mm x CL40
70	82	6.0	0.6	1.8	350	230	40	MILK MAS SD 70mm x CL40
76	90	7.0	0.6	1.8	380	290	40	MILK MAS SD 76mm x CL40
102	118	8.0	0.6	1.8	510	420	40	MILK MAS SD 102mm x CL40

** Vacuum resistance up to -0.9 bar









RECOMMENDED FOR	Premium hose construction for filling and discharge in milk tanker applications.
TUBE	NR based white food quality rubber.
REINFORCEMENT	Synthetic, high tensile textile, 2 steel wire helix.
COVER	NR based rubber, blue.
TEMPERATURE RANGE	-30°C to +70°C, intermittent up to +120°C / 20 minutes for cleaning.
BURST PRESSURE	> 18 bar.
STANDARDS	FDA, animal derived ingredient free.
BRANDING TRANSFER LABEL	PREMIUM™ MILK MASTER SD - FOOD 6 BAR

INDUSTRIAL HOSE FOOD & BEVERAGE

THE WORLD OF HOSE

PREMIUM™ BEVERAGE MASTER D



								
mm	mm	mm	MPa	MPa	kg/100m	m	REF.	
13	21	4.0	1.6	4.8	91	30	40	BEVERAGE MAS D 13mm x CL40
19	29	5.0	1.6	4.8	133	50	40	BEVERAGE MAS D 19mm x CL40
25	37	6.0	1.6	4.8	175	70	40	BEVERAGE MAS D 25mm x CL40
32	44	6.0	1.6	4.8	224	90	40	BEVERAGE MAS D 32mm x CL40
38	51	6.5	1.6	4.8	266	110	40	BEVERAGE MAS D 38mm x CL40
40	53	6.5	1.6	4.8	280	120	40	BEVERAGE MAS D 40mm x CL40
51	65	7.0	1.6	4.8	357	160	40	BEVERAGE MAS D 51mm x CL40
63	77	7.0	1.6	4.8	441	190	40	BEVERAGE MAS D 63mm x CL40
76	92	8.0	1.6	4.8	532	260	40	BEVERAGE MAS D 76mm x CL40
80	96	8.0	1.6	4.8	560	280	40	BEVERAGE MAS D 80mm x CL40
102	118	8.0	1.6	4.8	714	330	40	BEVERAGE MAS D 102mm x CL40









RECOMMENDED FOR	Premium pressure hose (D) for beer, ale, wines, alcohols (95%) and alcoholic beverages or liquid food. Transfer of milk, juice, soft drinks, pharmaceuticals, cosmetics or water-based products requiring an FDA sanitary hose.
TUBE	EPDM based white food quality rubber, oil and fat resistant (max.40%), odor- and tasteless.
REINFORCEMENT	Synthetic, high tensile textile.
COVER	EPDM red, ozone and chemicals resistant with cloth impression.
TEMPERATURE RANGE	-30°C to +90°C intermittent up to +130°C / 30 minutes for cleaning.
BURST PRESSURE	> 30 bar.
STANDARDS	FDA, animal derived ingredient free.
BRANDING TRANSFER LABEL	PREMIUM™ BEVERAGE MASTER D - BEER & WINE 16 BAR

INDUSTRIAL HOSE

WATER & AIR // MULTIPURPOSE

ESSENTIAL™ WATER MASTER D



								REF.
mm	mm	mm	MPa	MPa	mm	kg/100m	m	
25	35	5.0	1.0	3.0	175	60	40	WATER MAS D 25mm x CL40
25	35	5.0	1.0	3.0	175	60	61*	WATER MAS D 25mm x CL61
32	42	5.0	1.0	3.0	224	70	40	WATER MAS D 32mm x CL40
32	42	5.0	1.0	3.0	224	70	61*	WATER MAS D 32mm x CL61
38	48	5.0	1.0	3.0	266	90	40	WATER MAS D 38mm x CL40
51	63	6.0	1.0	3.0	357	140	40	WATER MAS D 51mm x CL40
51	63	6.0	1.0	3.0	357	140	61*	WATER MAS D 51mm x CL61
63	76	6.5	1.0	3.0	441	180	40	WATER MAS D 63mm x CL40
63	76	6.5	1.0	3.0	441	180	61*	WATER MAS D 63mm x CL61
76	89	6.5	1.0	3.0	532	220	40	WATER MAS D 76mm x CL40
102	116	7.0	1.0	3.0	714	300	40	WATER MAS D 102mm x CL40
102	116	7.0	1.0	3.0	714	300	61*	WATER MAS D 102mm x CL61
127	142	7.5	1.0	3.0	889	400	40	WATER MAS D 127mm x CL40
152	169	8.5	1.0	3.0	1064	550	40	WATER MAS D 152mm x CL40
203	224	10.5	1.0	3.0	1421	950	40	WATER MAS D 203mm x CL40

* 61 m coils are made to order

RECOMMENDED FOR

Pressure hose (D) for water, waste water, sea water, mud, slurry. Water discharge in heavy duty service requiring a compact, rugged and lightweight hose.

TUBE

Black EPDM, smooth.

REINFORCEMENT

Synthetic, high tensile textile cord.

COVER

EPDM rubber, black, good weather and aging resistance.

TEMPERATURE RANGE

-35°C to +95°C.

BURST PRESSURE

> 30 bar.

BRANDING TRANSFER LABEL

ESSENTIAL™ WATER MASTER D - 10 BAR










INDUSTRIAL HOSE

WATER & AIR // MULTIPURPOSE

THE WORLD OF HOSE

ESSENTIAL™ WATER MASTER SD



								
mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
25	35	5.0	1.0	3.0	125	70	40	WATER MAS SD 25mm x CL40
25	35	5.0	1.0	3.0	125	70	61*	WATER MAS SD 25mm x CL61
32	42	5.0	1.0	3.0	160	90	40	WATER MAS SD 32mm x CL40
32	42	5.0	1.0	3.0	160	90	61*	WATER MAS SD 32mm x CL61
38	48	5.0	1.0	3.0	190	110	40	WATER MAS SD 38mm x CL40
38	48	5.0	1.0	3.0	190	110	61*	WATER MAS SD 38mm x CL61
51	63	6.0	1.0	3.0	255	160	40	WATER MAS SD 51mm x CL40
51	63	6.0	1.0	3.0	255	160	61*	WATER MAS SD 51mm x CL61
63	76	6.5	1.0	3.0	315	230	40	WATER MAS SD 63mm x CL40
63	76	6.5	1.0	3.0	315	230	61*	WATER MAS SD 63mm x CL61
76	89	6.5	1.0	3.0	380	280	40	WATER MAS SD 76mm x CL40
76	89	6.5	1.0	3.0	380	280	61*	WATER MAS SD 76mm x CL61
102	116	7.0	1.0	3.0	510	390	40	WATER MAS SD 102mm x CL40
102	116	7.0	1.0	3.0	510	390	61*	WATER MAS SD 102mm x CL61
127	142	7.5	1.0	3.0	635	570	40	WATER MAS SD 127mm x CL40
152	169	8.5	1.0	3.0	760	800	40	WATER MAS SD 152mm x CL40
203	224	10.5	1.0	3.0	1015	1290	40	WATER MAS SD 203mm x CL40

* 61 m coils are made to order ** Vacuum resistance up to -0.9 bar

RECOMMENDED FOR

Vacuum and pressure hose (SD) for water, waste water, sea water, mud, slurry. Water suction in heavy duty service requiring a compact, rugged and light weight hose.

TUBE

Black EPDM, smooth.

REINFORCEMENT

Synthetic, high tensile textile with steel wire helix.

COVER

EPDM rubber, black, good weather and aging resistance.

TEMPERATURE RANGE

-35°C to +95°C.

BURST PRESSURE

> 30 bar.

BRANDING TRANSFER LABEL

ESSENTIAL™ WATER MASTER SD - 10 BAR

INDUSTRIAL HOSE

WATER & AIR // MULTIPURPOSE

GP80 PLUS



mm	mm	MPa	MPa	mm	mm/Hg	kg/100m	REF.
6	13.0	3.7	11.0	35	760	13	GP80+ - 6mm
8	15.0	3.7	11.0	50	760	16	GP80+ - 8mm
10	17.0	3.7	11.0	60	760	20	GP80+ - 10mm
13	20.5	3.7	11.0	70	635	26	GP80+ - 13mm
16	24.2	3.0	9.0	90	500	33	GP80+ - 16mm
19	29.0	3.0	9.0	110	500	47	GP80+ - 19mm
25	35.6	3.0	9.0	130	500	61	GP80+ - 25mm
32	42.8	3.0	9.0	200	250	75	GP80+ - 32mm
38	51.0	3.0	9.0	300	250	101	GP80+ - 38mm
51	64.0	3.0	9.0	500	125	144	GP80+ - 50mm

RECOMMENDED FOR

General industrial applications such as oil, alcohols, aqueous solutions, hydraulic fluids, acids, detergents and chemicals.
Static conductive for more security.

TUBE

NBR (Nitrile) based.

REINFORCEMENT

One or two fibre braids.

COVER

NBR/PVC based.

TEMPERATURE RANGE

-40°C to +100°C.

STANDARDS

Gates proprietary.

COUPLINGS

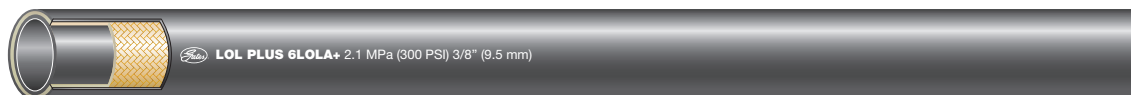
-4 to -20: MegaCrimp®; -24 to -32: GlobalSpiral Plus.

INDUSTRIAL HOSE

WATER & AIR // MULTIPURPOSE

THE WORLD OF HOSE

LOCK-ON PLUS

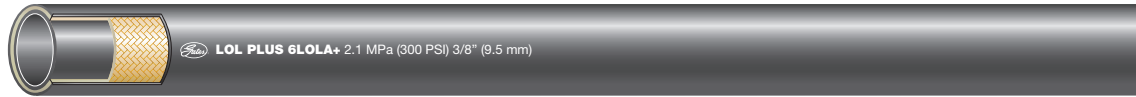


mm	"	mm	MPa	MPa	mm	mm/Hg	kg/100m	REF.
6	1/4	11.9	2.1	8.4	45	710	13	LOLA+04
10	3/8	15.9	2.1	8.4	75	710	16	LOLA+06
13	1/2	19.6	2.1	8.4	80	710	23	LOLA+08
16	5/8	23.9	2.1	8.4	115	710	30	LOLA+10
19	3/4	26.9	2.1	8.4	135	380	36	LOLA+12
6	1/4	11.9	2.1	8.4	45	710	13	LOLB+04
10	3/8	15.9	2.1	8.4	75	710	16	LOLB+06
13	1/2	19.6	2.1	8.4	80	710	23	LOLB+08
16	5/8	23.9	2.1	8.4	115	710	30	LOLB+10
19	3/4	26.9	2.1	8.4	135	380	36	LOLB+12
6	1/4	11.9	2.1	8.4	45	710	13	LOLC+04
10	3/8	15.9	2.1	8.4	75	710	16	LOLC+06
13	1/2	19.6	2.1	8.4	80	710	23	LOLC+08
16	5/8	23.9	2.1	8.4	115	710	30	LOLC+10
19	3/4	26.9	2.1	8.4	135	380	36	LOLC+12
6	1/4	11.9	2.1	8.4	45	710	13	LOLG+04
10	3/8	15.9	2.1	8.4	75	710	16	LOLG+06
13	1/2	19.6	2.1	8.4	80	710	23	LOLG+08
16	5/8	23.9	2.1	8.4	115	710	30	LOLG+10
19	3/4	26.9	2.1	8.4	135	380	36	LOLG+12
6	1/4	11.9	2.1	8.4	45	710	13	LOLR+04
10	3/8	15.9	2.1	8.4	75	710	16	LOLR+06
13	1/2	19.6	2.1	8.4	80	710	23	LOLR+08
16	5/8	23.9	2.1	8.4	115	710	30	LOLR+10
19	3/4	26.9	2.1	8.4	135	380	36	LOLR+12

INDUSTRIAL HOSE

WATER & AIR // MULTIPURPOSE

LOCK-ON PLUS



RECOMMENDED FOR	Petroleum-based hydraulic oils, antifreeze solutions, water, hot lubricating oils and air. Suitable for low-pressure cleaning and pneumatic systems, return lines and low pressure lines. Lock-On hose and couplings are not recommended for pressure surge applications or critical applications.
TUBE	NBR (Nitrile) based.
REINFORCEMENT	One fibre braid.
COVER	NBR/PVC based.
TEMPERATURE RANGE	-40°C to +100°C constant and +121°C intermittent. For water emulsions, etc. see Temperature Limits Table.
STANDARDS	Gates proprietary.
COUPLINGS	Lock-On Plus reusable couplings.
CHARACTERISTICS/BENEFITS	Available in 5 colours for easy colour coding. Easy to assemble.

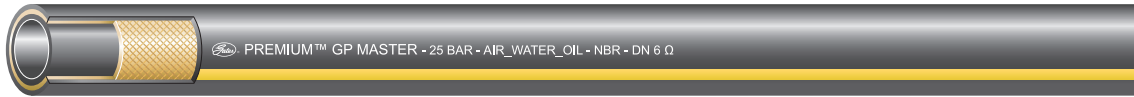
A = black
R = red
B = blue
C = grey
G = green










INDUSTRIAL HOSE

WATER & AIR // MULTIPURPOSE

THE WORLD OF HOSE

PREMIUM™ GP MASTER



								
mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
6	14	4.0	2.5	8.0	50	17	60	GP MAS 6mm x CL60
8	16	4.0	2.5	8.0	50	21	60	GP MAS 8mm x CL60
10	18	4.0	2.5	8.0	75	24	60	GP MAS 10mm x CL60
13	21	4.0	2.5	8.0	100	30	60	GP MAS 13mm x CL60
16	25	4.5	2.5	8.0	125	40	60	GP MAS 16mm x CL60
19	29	5.0	2.5	8.0	125	54	60	GP MAS 19mm x CL60
25	37	6.0	2.5	8.0	200	83	60	GP MAS 25mm x CL60

RECOMMENDED FOR

Applications requiring a premium grade spiralled hose with excellent flexibility and maximum resistance to compressor air, water, gasoline, fuel oil and lubricant oils. Suitable for 20% biodiesel blends.

TUBE

Black NBR, smooth, conductive.

REINFORCEMENT

Textile layers, spiralled.

COVER

CR rubber, smooth cover, excellent resistance to weather and abrasion, good chemical and oil resistance, 1 extruded yellow longitudinal stripe.

TEMPERATURE RANGE

-40°C to +95°C.

BURST PRESSURE

> 3.15 x WP.

ELECTRICALLY CONDUCTIVE

R < 10⁶ Ohm.

INKJET LABEL

PREMIUM™ GP MASTER - 25 BAR - AIR_WATER_OIL NBR - DN .. Ø

INDUSTRIAL HOSE

WATER & AIR // MULTIPURPOSE

GP60



mm	mm	MPa	MPa	mm	mm/Hg	kg/100m	REF.
6	13.0	2.0	6.0	45	760	13	GP60 - 6mm
8	15.0	2.0	6.0	65	760	16	GP60 - 8mm
10	17.0	2.0	6.0	75	760	20	GP60 - 10mm
13	20.5	2.0	6.0	100	635	26	GP60 - 13mm
16	24.2	2.0	6.0	115	500	33	GP60 - 16mm
19	29.0	2.0	6.0	135	500	47	GP60 - 19mm
25	35.6	2.0	6.0	165	500	61	GP60 - 25mm

RECOMMENDED FOR

Hot water washdown applications up to +100°C, general industrial applications such as oil and hydraulic fluids (+100°C), alcohols and aqueous solutions.

TUBE

NBR (Nitrile) based.

REINFORCEMENT

One fibre braid.

COVER

NBR/PVC based.

TEMPERATURE RANGE

-40°C to +100°C.

STANDARDS

Gates proprietary.

COUPLINGS

MegaCrimp®.










INDUSTRIAL HOSE

WATER & AIR // MULTIPURPOSE

THE WORLD OF HOSE

PREMIUM™ MULTI MASTER



								
mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
6	13	3.5	2.0	8.0	50	14	100	MULTI MAS 6mm x CL100
8	15	3.5	2.0	8.0	50	18	100	MULTI MAS 8mm x CL100
10	17	3.5	2.0	8.0	75	21	100	MULTI MAS 10mm x CL100
13	21	4.0	2.0	8.0	100	29	100	MULTI MAS 13mm x CL100
16	25	4.5	2.0	8.0	125	40	50	MULTI MAS 16mm x CL50
19	29	5.0	2.0	8.0	125	53	50	MULTI MAS 19mm x CL50
25	37	6.0	2.0	8.0	200	83	50	MULTI MAS 25mm x CL50
32	44	6.0	2.0	7.0	250	99	30	MULTI MAS 32mm x CL30
38	50	6.0	2.0	7.0	300	115	30	MULTI MAS 38mm x CL30

RECOMMENDED FOR

Premium multi-purpose hose for air and water applications requiring maximum flexibility in any industry, including mining, construction, agriculture, vehicle repair and in-plant operations. Outstanding resistance to heat and ozone. Suitable for light agricultural spraying, such as diluted solutions of herbicides.

TUBE

Black EPDM, smooth.

REINFORCEMENT

Textile layers, spiralled.

COVER

EPDM rubber, smooth with 1 blue extruded longitudinal stripe.

TEMPERATURE RANGE

-40°C to +100°C.

BURST PRESSURE

4 x WP.

ELECTRICALLY CONDUCTIVE

$R < 10^6 \text{ Ohm}$.

INKJET LABEL

PREMIUM™ MULTI MASTER - 20 BAR - AIR_WATER - EPDM - DN.. Ω

INDUSTRIAL HOSE

WATER & AIR // MULTIPURPOSE

PLANT MASTER™ XTREME™ 250 FORMERLY PREMO FLEX™



mm	"	mm	MPa	MPa	mm	mm/Hg	kg/100m	REF.
6	1/4	12.7	1.7	5.2	50	760	13	PLANT MAS XTRM 250 1/4"
10	3/8	16.8	1.7	5.2	75	760	20	PLANT MAS XTRM 250 3/8"
13	1/2	21.6	1.7	5.2	100	635	33	PLANT MAS XTRM 250 1/2"
16	5/8	24.9	1.7	5.2	130	510	39	PLANT MAS XTRM 250 5/8"
19	3/4	29.2	1.7	5.2	130	510	52	PLANT MAS XTRM 250 3/4"
25	1	37.3	1.7	5.2	200	250	82	PLANT MAS XTRM 250 1"
32	1.1/4	44.5	1.7	5.2	250	250	98	PLANT MAS XTRM 250 1.1/4"
38	1.1/2	50.8	1.7	5.2	300	250	115	PLANT MAS XTRM 250 1.1/2"

RECOMMENDED FOR	Applications requiring a premium grade spiral hose with excellent flexibility and maximum resistance to air, water, petroleum oils and lubricating oils (up to +100°C). Recommended for gasoline, kerosene and fuel oil transfer only (up to +48°C). Excellent weather and ozone resistance.
TUBE	NBR (Nitrile) based, black.
REINFORCEMENT	Synthetic, high tensile cord.
COVER	Modified nitrile, red.
TEMPERATURE RANGE	-40°C to +100°C.
STANDARDS	Gates proprietary.
CHARACTERISTICS/BENEFITS	Non-conductive at 1000 volts DC. Meets electrical resistance of one Megaohm per inch when subjected to 1000 volts DC. Storage and use may adversely affect electrical properties.
BRANDING	GATES® PLANT MASTER™ XTREME™ 250 MULTI-PURPOSE 3/8 INCH (9.5MM) 250 PSI (1.72MPa) WP NON-CONDUCTIVE AT 1000V DC (>1 MEGOHM/IN.) MADE IN USA

INDUSTRIAL HOSE

WATER & AIR // MULTIPURPOSE

THE WORLD OF HOSE

PLANT MASTER® 200 / 250 BLACK FORMERLY ADAPTA FLEX™ BLACK



mm	"	mm	MPa	MPa	mm	mm/Hg	kg/100m	REF.
6	1/4	12.7	1.4	4.1	76	762	13	PLANT MAS 200 BLACK 1/4"
10	3/8	16.8	1.4	4.1	76	762	20	PLANT MAS 200 BLACK 3/8"
13	1/2	20.6	1.4	4.1	127	635	30	PLANT MAS 200 BLACK 1/2"
16	5/8	24.6	1.4	4.1	152	508	39	PLANT MAS 200 BLACK 5/8"
19	3/4	28.2	1.4	4.1	152	381	46	PLANT MAS 200 BLACK 3/4"
25	1	35.6	1.4	4.1	203	254	72	PLANT MAS 200 BLACK 1"
32	1.1/4	43.9	1.7	5.1	254	254	101	PLANT MAS 250 BLACK 1.1/4"
38	1.1/2	50.3	1.7	5.1	305	254	126	PLANT MAS 250 BLACK 1.1/2"

RECOMMENDED FOR

Air and water applications requiring maximum flexibility in any industry, including mining, construction, agriculture, vehicle repair and in-plant operations. Outstanding resistance to heat and ozone. Suitable for light agricultural spraying, such as dilute solutions of herbicides.

TUBE

Type P (EPDM), black.

REINFORCEMENT

Synthetic, high tensile textile cord.

COVER

Type P (EPDM). Black. All sizes through 1/2" are perforated.

TEMPERATURE RANGE

-40°C to +93°C continuous service.

STANDARDS

Gates proprietary.

BRANDING

GATES® PLANT MASTER™ 200 1/4 INCH [6.3MM] 200 PSI [13.8 BAR]
MADE IN USA

INDUSTRIAL HOSE

WATER & AIR // MULTIPURPOSE

GP40



mm	mm	MPa	MPa	mm	mm/Hg	kg/100m	REF.
6	12.0	1.3	4.0	45	760	11	GP40 - 6mm
8	15.0	1.3	4.0	65	760	16	GP40 - 8mm
10	17.0	1.3	4.0	75	760	19	GP40 - 10mm
13	20.5	1.3	4.0	90	635	25	GP40 - 13mm
16	24.0	1.3	4.0	115	500	31	GP40 - 16mm
19	28.0	1.3	4.0	135	500	46	GP40 - 19mm
25	35.0	1.3	4.0	180	250	61	GP40 - 25mm
32	44.0	1.3	4.0	200	250	93	GP40 - 32mm
38	51.0	1.3	4.0	300	250	120	GP40 - 38mm

RECOMMENDED FOR

General air service up to +80°C and general water service up to +100°C and applications requiring maximum flexibility and high abrasion resistance. Resistant to ozone and weather influences.

TUBE

EPDM based.

REINFORCEMENT

One or two textile layers.

COVER

EPDM based.

TEMPERATURE RANGE

-40°C to +100°C constant and +121°C intermittent.

STANDARDS

Gates proprietary.

COUPLINGS

-4 to -20: MegaCrimp®; -24: GlobalSpiral Plus.










INDUSTRIAL HOSE

WATER & AIR // MULTIPURPOSE

THE WORLD OF HOSE

AIR MASTER™ DIVING UMBILICAL FORMERLY 33HB DIVERS' AIR



								
mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
10	19	4.8	7.8	31.0	102	30	182.9-213.1	AIR MASTER DIVING UMBILICAL 1000 3/8"
10	19	4.8	7.8	31.0	102	30	304.8-Plus m	AIR MASTER DIVING UMBILICAL 1000 3/8"
13	24	5.6	6.9	27.6	127	40	15.24-91.14	AIR MASTER DIVING UMBILICAL 1125 1/2"
13	24	5.6	6.9	27.6	127	40	304.8-Plus m	AIR MASTER DIVING UMBILICAL 1125 1/2"

RECOMMENDED FOR	Handling mixtures of oxygen, helium and nitrogen gases customarily used in diving applications as air breathing hose. The kink resistance hose is designed for extra long wear under normal operating use.
TUBE	Type C (Nitrile), black.
REINFORCEMENT	Braided, high tensile synthetic textile cord.
COVER	Type A (Neoprene), black. All sizes are perforated.
TEMPERATURE RANGE	-40°C to +49°C continuous service.
STANDARDS	Meets MIL-H-2815G Section 3.12.2 off-gassing for air breathing applications, especially diving.
BRANDING TRANSFER LABEL	GATES® AIR MASTER™ DIVING UMBILICAL (1000-1125) 3/8 INCH (9.5MM) MADE IN U.S.A

INDUSTRIAL HOSE MATERIAL HANDLING

ESSENTIAL™ SANDBLAST MASTER D



mm	mm	mm	MPa	MPa	kg/100m	m	REF.	
19	34	7.5	1.2	4.8	133	80	40	SANDBLAST MAS D 19mm x CL40
25	40	7.5	1.2	4.8	175	100	40	SANDBLAST MAS D 25mm x CL40
32	48	8.0	1.2	4.8	224	120	40	SANDBLAST MAS D 32mm x CL40
38	56	9.0	1.2	4.8	266	150	40	SANDBLAST MAS D 38mm x CL40

RECOMMENDED FOR Hose for sandblasting of metal castings, steel, stone, sand and cement wherever abrasive materials are carried at a high velocity.

TUBE NR/BR based, black, anti-static.

REINFORCEMENT High tensile synthetic textile cord.

COVER NR/BR based, anti-static, resistant to weather and abrasion.

TEMPERATURE RANGE -40°C to +75°C.

BURST PRESSURE > 48 bar.

ELECTRICALLY CONDUCTIVE $R < 10^6$ Ohm.

STANDARDS DIN 53516: ~55 mm³.









BRANDING TRANSFER LABEL ESSENTIAL™ SANDBLAST MASTER D - 12 BAR

INDUSTRIAL HOSE MATERIAL HANDLING

THE WORLD OF HOSE

ESSENTIAL™ CEMENT MASTER D



								
mm	mm	mm	MPa	MPa	kg/100m	m	REF.	
51	65	7.0	0.8	2.4	357	160	40	CEMENT MAS D 51mm x CL40
63	79	8.0	0.8	2.4	441	220	40	CEMENT MAS D 63mm x CL40
76	94	9.0	0.8	2.4	532	290	40	CEMENT MAS D 76mm x CL40
80	98	9.0	0.8	2.4	560	310	40	CEMENT MAS D 80mm x CL40
90	110	10.0	0.8	2.4	630	380	40	CEMENT MAS D 90mm x CL40
102	122	10.0	0.8	2.4	714	410	40	CEMENT MAS D 102mm x CL40
110	130	10.0	0.8	2.4	770	440	40	CEMENT MAS D 110mm x CL40

RECOMMENDED FOR

Pressure hose (D) for pneumatic transport of dry cement, slurries, dust, limestone, wood chips, coal, sand, gravel, ground slate, asphalt roofing chips, metal shavings. Contains a static-conducting black rubber in the tube and a ground wire in the hose wall for static charge dissipation.

TUBE

Black, anti-static NR/BR based rubber.

REINFORCEMENT

High tensile synthetic textile cord, static wire.

COVER

Black, anti-static NR/SBR based rubber, resistant to weather and abrasion.

TEMPERATURE RANGE

-20°C to +80°C.

BURST PRESSURE

> 24 bar.

ELECTRICALLY CONDUCTIVE

$R < 10^6 \text{ Ohm}$.

STANDARDS

DIN 53516.










BRANDING TRANSFER LABEL

ESSENTIAL™ CEMENT MASTER D - 8 BAR

INDUSTRIAL HOSE MATERIAL HANDLING

ESSENTIAL™ CEMENT MASTER SD



								
mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
51	67	8.0	0.8	2.4	255	220	40	CEMENT MAS SD 51mm x CL40
63	81	9.0	0.8	2.4	315	300	40	CEMENT MAS SD 63mm x CL40
76	96	10.0	0.8	2.4	380	400	40	CEMENT MAS SD 76mm x CL40
80	100	10.0	0.8	2.4	400	420	40	CEMENT MAS SD 80mm x CL40
90	110	10.0	0.8	2.4	450	460	40	CEMENT MAS SD 90mm x CL40
102	122	10.0	0.8	2.4	510	530	40	CEMENT MAS SD 102mm x CL40
110	132	11.0	0.8	2.4	550	650	40	CEMENT MAS SD 110mm x CL40
127	149	11.0	0.8	2.4	635	800	40	CEMENT MAS SD 127mm x CL40
152	175	11.5	0.8	2.4	760	970	40	CEMENT MAS SD 152mm x CL40
203	228	12.5	0.8	2.4	1015	1480	40	CEMENT MAS SD 203mm x CL40

** Vacuum resistance up to -0.9 bar

RECOMMENDED FOR

Vacuum and pressure hose (SD) for pneumatic transport of dry cement, slurries, dust, limestone, wood chips, coal, sand, gravel, ground slate, asphalt roofing chips, metal shavings. Contains a static-conducting black rubber in the tube and a ground wire in the hose wall for static charge dissipation.

TUBE

Black, anti-static NR/BR based rubber.

REINFORCEMENT

High tensile synthetic textile cord, steel wire helix, static wires.

COVER

Black, anti-static NR/SBR based rubber, resistant to weather and abrasion.

TEMPERATURE RANGE

-20°C to +80°C.

BURST PRESSURE

> 24 bar.

ELECTRICALLY CONDUCTIVE

$R < 10^6 \text{ Ohm}$.

STANDARDS

DIN 53516.

BRANDING TRANSFER LABEL

ESSENTIAL™ CEMENT MASTER SD - 8 BAR

INDUSTRIAL HOSE MATERIAL HANDLING

THE WORLD OF HOSE

ESSENTIAL™ SILO MASTER D - FOOD



mm	mm	mm	MPa	MPa	kg/100m	m	REF.
51	65	7.0	0.8	2.4	357	150	SILO MAS D - 51mm x CL40
63	81	9.0	0.8	2.4	441	240	SILO MAS D - 63mm x CL40
76	96	10.0	0.8	2.4	532	310	SILO MAS D - 76mm x CL40
80	100	10.0	0.8	2.4	560	330	SILO MAS D - 80mm x CL40
90	110	10.0	0.8	2.4	630	370	SILO MAS D - 90mm x CL40
102	122	10.0	0.8	2.4	714	390	SILO MAS D - 102mm x CL40
110	132	11.0	0.8	2.4	770	450	SILO MAS D - 110mm x CL40

RECOMMENDED FOR	Pressure hose (D) for pneumatic transport of abrasive bulk food materials such as plastic granules, grain and sugar.
TUBE	White, NR/BR based rubber.
REINFORCEMENT	High tensile synthetic textile cord, static wire.
COVER	Black, anti-static NR/BR based rubber, resistant to weather and abrasion.
TEMPERATURE RANGE	-20°C to +80°C.
BURST PRESSURE	> 24 bar.
STANDARDS	FDA.
BRANDING TRANSFER LABEL	ESSENTIAL™ SILO MASTER D - FOOD 8 BAR

INDUSTRIAL HOSE MATERIAL HANDLING

ESSENTIAL™ SILO MASTER SD - FOOD



mm	mm	mm	MPa	MPa	mm	kg/100m	m	REF.
51	67	8.0	0.8	2.4	204	210	40	SILO MAS SD - 51mm x CL40
63	81	9.0	0.8	2.4	252	280	40	SILO MAS SD - 63mm x CL40
76	96	10.0	0.8	2.4	304	370	40	SILO MAS SD - 76mm x CL40
80	100	10.0	0.8	2.4	320	380	40	SILO MAS SD - 80mm x CL40
90	110	10.0	0.8	2.4	360	430	40	SILO MAS SD - 90mm x CL40
102	122	10.0	0.8	2.4	408	520	40	SILO MAS SD - 102mm x CL40
110	132	11.0	0.8	2.4	440	620	40	SILO MAS SD - 110mm x CL40
152	175	11.5	0.8	2.4	608	960	40	SILO MAS SD - 152mm x CL40
203	228	12.5	0.8	2.4	812	1400	40	SILO MAS SD - 203mm x CL40

** Vacuum resistance up to -0.9 bar









RECOMMENDED FOR	Vacuum and pressure hose (SD) for pneumatic transport of abrasive bulk food materials such as plastic granules, grain and sugar.
TUBE	White, NR/BR based rubber.
REINFORCEMENT	High tensile synthetic textile cord, steel wire helix, static wire.
COVER	Black, NR/BR based rubber, resistant to weather and abrasion.
TEMPERATURE RANGE	-20°C to +80°C.
BURST PRESSURE	> 24 bar.
STANDARDS	FDA.
BRANDING TRANSFER LABEL	ESSENTIAL™ SILO MASTER SD - FOOD 8 BAR

INDUSTRIAL HOSE MATERIAL HANDLING

THE WORLD OF HOSE

ESSENTIAL™ CONCRETE MASTER D



							
mm	mm	mm	MPa	MPa	kg/100m	m	REF.
19	31	6.0	4.0	12.0	50	40	CONCRETE MAS D 19mm x CL40
25	39	7.0	4.0	12.0	175	40	CONCRETE MAS D 25mm x CL40
32	47	7.5	4.0	12.0	224	40	CONCRETE MAS D 32mm x CL40
35	50	7.5	4.0	12.0	245	40	CONCRETE MAS D 35mm x CL40
38	54	8.0	4.0	12.0	266	40	CONCRETE MAS D 38mm x CL40
50	68	9.0	4.0	12.0	350	40	CONCRETE MAS D 50mm x CL40
63	83	10.0	4.0	12.0	441	40	CONCRETE MAS D 63mm x CL40

RECOMMENDED FOR	Concrete pump hose for abrasive substances such as concrete mortar, cement, plaster, grout and cement applications, handling a multitude of materials being pumped to concrete structures, tunnel faces, swimming pools.
TUBE	Black, anti-static NR/BR/SBR based rubber.
REINFORCEMENT	High tensile synthetic textile cord.
COVER	Black, anti-static NR/SBR based rubber, resistant to weather and abrasion.
TEMPERATURE RANGE	-20°C to +70°C.
BURST PRESSURE	> 120 bar.
ELECTRICALLY CONDUCTIVE	R < 10 ⁶ Ohm.
STANDARDS	DIN 53516: ~70 mm ³ .
BRANDING TRANSFER LABEL	ESSENTIAL™ CONCRETE MASTER D - 40 BAR

INDUSTRIAL HOSE OILFIELD PRODUCTS



BLACK GOLD™

Hoses built to industry standards for tough duty in and around oil and gas fields, from the drilling rig to the frack truck.



Black Gold™ Rotary Vibrator 7,500

Flexible connection between standpipe and swivel, or pump and standpipe (7,500 psi): API 7K (Grade E).



Black Gold™ Rotary Vibrator 5,000

Flexible connection between standpipe and swivel, or pump and standpipe (5,000 psi): API 7K (Grade D).



Black Gold™ Slim Hole Rotary (1500-5000)

Flexible connector in pressure lines used to convey mud or air in rotary applications (1,500 – 5,000 psi).



Black Gold™ XTreme™ Choke & Kill 10,000

API Spec 16C certified hose used on drilling rig BOP systems (10,000 psi).



Black Gold™ Choke & Kill 15,000 / 10,000 / 5,000

Flexible hose used on drilling rig BOP systems (15,000 psi / 10,000 psi / 5,000 psi): API 7K.



Black Gold™ Rotary Vibrator 7,500 / 5,000 Sour Service

Engineered to withstand up to 20% H₂S (7,500 psi).



Black Gold™ Cementing 15,000 / 10,000 / 5,000

For conveying cement slurries at high pressure (15,000 psi / 10,000 psi / 5,000 psi).



Black Gold™ 5000 MegaShield

Fire resistant hose for use in high performance BOP systems API 16D.

INDUSTRIAL HOSE OILFIELD PRODUCTS

THE WORLD OF HOSE



Black Gold™ Blender Transfer 150 D

For transfer of fluids used in fracking and well stimulation.



Black Gold™ Decoking 7,500 / 5,000

For transferring coke from silos to railroad cars (7,500 psi / 5,000 psi).



Black Gold™ Fuel 300 SD

For fuel suction/discharge in offshore/onshore transfer applications.



Black Gold™ Fuel 300 D

For fuel discharge in offshore/ onshore transfer applications.



Black Gold™ Oilfield Service 400 SD

Suction/discharge hose for a wide range of oilfield fluid transfer applications.



Black Gold™ Oilfield Service 400 D

Discharge hose for a wide range of oilfield fluid transfer applications. Also available in MegaTuff™ and UltraBration™ covers.

To find out more about our rotary hose offering please go to our website
[gates.com/industries/industrial/oilfield](https://www.gates.com/industries/industrial/oilfield).



INDUSTRIAL HOSE OILFIELD PRODUCTS



LARGE DIAMETER MEGASPIRAL™ HOSE ASSEMBLIES

Today's more powerful large-capacity industrial equipment needs hydraulic hose assemblies that are engineered for their extreme requirements – high pressures, unexpected surges and dramatic flexing. With internal diameters up to size -48, one MegaSys® MegaSpiral™ hose assembly outperforms multi-line assemblies with fewer components, less routing, less abrasion, less expense, and less maintenance while providing more power to the system for improved efficiency and productivity. New MegaSpiral™ 40EFG5K and 48EFG4K assemblies are tested and performing over 1 million impulse cycles at 133% of working pressure at +121°C, far above the SAE J2545 reference standard.

							Recommended Couplings		
-size	DN	mm	MPa	MPa	mm	kg/100m	ISO 6164-4	Code 62	API-LP
-40	63	85.1	35.0	140.0	760	897	40GSM63FLSHCF	40GSM40FLHCFM	40GSM40API-LP
-48	76	98.0	28.0	112.0	890	1012	48GSM80FLSHCF	48GSM48FLHCFM	48GSM48API-LP

How to order

Black Gold™ oilfield and large bore MegaSpiral™ hose assemblies are produced in authorised and specialised Gates assembly centres with dedicated equipment to manipulate, cut, crimp, pack and certify these large bore assemblies. Please contact your Gates representative for further details and customised offer to your specific application needs.



Maximise flow rate
and power for large
capacity equipment

CHEMICAL RESISTANCE TABLE

THE WORLD OF HOSE

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers														Couplings / Adapters					
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
		NOTE: Ratings are for the affect on the polymer only!																			
1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data																					
NOTE: Ratings are for the affect on the polymer only!																					
A																					
Absorption Oil	Liquid	1	2	2	X	1	X	X	2	X	1	2	1	1	-	-	-	-	-	1	-
Acetal	Colorless Liquid	1	1	1	1	-	-	-	-	1	X	-	1	-	-	-	-	-	-	1	-
Acetaldehyde	Colorless Liquid	1	1	1	1	X	2	2	X	1	X	X	1	2	X	1	1	1	1	1	1
Acetamide	Liquid above 176°F(80°C)	1	1	2	2	2	X	X	2	2	X	-	1	-	-	-	2	-	1	X	-
Acetic Acid (40% or less)	Clear Colorless Liquid	1	1	1	1	X	2	X	2	1	X	2	1	-	-	X	2	2	2	X	2
Acetic Acid (56% or less)	Clear Colorless Liquid	1	1	1	1	X	2	X	2	1	X	2	1	X	2	X	2	2	2	X	2
Acetic Acid (85% or less)	Clear Colorless Liquid	1	1	1	2	X	2	X	X	X	X	X	X	X	X	-	2	-	-	-	X
Acetic Acid (Glacial - 99.4%)	Clear Colorless Liquid	1	1	X	X	X	2	X	X	X	X	X	1	X	X	-	2	2	-	-	X
Acetic Acid, Anhydride	Clear Colorless Liquid	1	-	X	-	X	X	X	X	2	-	2	1	X	X	-	2	2	-	-	X
Acetic Anhydride (Acetic Oxide)	Colorless Liquid	1	1	1	1	X	X	X	-	2	X	2	1	X	X	X	2	2	2	X	X
Acetic Ether (Ethyl Acetate)	Colorless Liquid	1	1	1	2	X	X	X	X	2	X	X	2	1	X	1	1	1	1	1	2
Acetic Oxide (Acetic Anhydride)	Colorless Liquid	1	1	1	1	-	X	X	-	2	X	2	1	X	X	X	2	2	2	X	X
Acetone (Dimethylketone)	Colorless Liquid	1	1	X	2	X	X	X	X	2	X	X	1	1	X	1	1	1	1	1	2
Acetone Cyanohydrin	Colorless Liquid	1	1	2	2	-	X	X	-	2	-	-	2	-	-	-	-	-	-	-	-
Acetonitrile (Methyl Cyanide)	Colorless Liquid	1	1	2	X	X	2	2	2	2	2	-	2	1	-	1	-	-	-	-	-
Acetophenone	Colorless Liquid	1	2	2	1	X	X	X	X	1	X	-	-	-	-	-	-	-	-	-	2
Acetyl Chloride	Colorless Liquid	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Acetyl Oxide (Acetic Anhydride)	Colorless Liquid	1	1	1	1	X	X	X	-	2	X	2	1	X	X	X	2	2	2	X	X
Acetyl-P-Toluidine (In Ether or Alcohols)	In Alcohol or Ether	1	1	1	1	-	X	X	-	2	X	-	1	-	-	-	-	-	-	-	-
Acetylene	Gas	NO HOSE AVAILABLE																			
Acetylene Dichloride (Dichloroethylene)	Colorless Liquid	1	X	X	X	-	X	X	-	X	1	-	X	1	X	-	-	-	-	-	X
Acetylene Tetrachloride (Tetrachloroethane)	Colorless Liquid	1	X	X	X	-	X	X	-	X	1	-	X	1	X	-	-	-	-	-	-
Acrolein (Hydroquinone Inhibited)	Colorless to Yellow Liquid	1	1	1	X	-	-	-	-	2	X	-	-	-	-	-	-	-	-	-	-
Acrylamide	Colorless Crystals	1	1	2	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Acrylates (HEA or HPA)	Colorless Liquid	1	1	1	X	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
Acrylic Acid	Colorless Liquid	1	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Acrylic Acid (Glacial 97%)	Colorless Liquid	1	1	1	X	X	X	X	X	X	1	X	X	X	X	-	-	-	-	-	-
Acrylic Emulsion	Liquid	1	1	1	X	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Acrylonitrile	Colorless Liquid	1	2	2	X	X	2	2	X	X	X	X	1	-	1	1	1	1	-	-	-
Adipic Acid (70°F)	White Crystals	1	1	X	1	X	X	1	X	-	1	-	-	X	X	-	-	-	-	-	-
Aeroshell 7A, 17 Grease	Liquid	1	-	-	-	1	-	-	2	-	-	-	-	-	-	1	1	1	1	-	-
Air, 212°F (100°C)	Colorless Gas	1	1	2	1	1	2	X	1	1	1	1	1	X	2	1	1	1	1	1	-
Air, 257°F (125°C)	Colorless Gas	1	1	X	1	X	X	X	2	1	1	1	1	X	X	-	-	-	-	-	-
Air, 300°F (149°C)	Colorless Gas	1	1	X	1	X	X	X	X	1	1	X	X	X	X	-	-	-	-	-	-
Air, Ambient	Colorless Gas	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Aircraft Hyd. Oil AA	Liquid	1	1	-	X	1	-	-	-	X	-	-	-	-	-	1	1	1	1	1	-
Alachlor (Lasso)	Colorless Crystals	1	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1	-	-	-
Alkaline Liquid (NOS)	In Water Solutions	1	1	1	1	-	-	-	-	1	2	-	1	-	-	-	-	-	-	-	-
Alkyaryl Polyether Alcohol	-	1	1	1	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
Alkyd Resin (Thermosetting Polymer)	Varies	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkylaryl Sulfonate (Alkylbenzene Sulfonate)	Powder	1	1	1	-	1	-	1	-	-	1	X	1	-	-	1	1	-	-	-	-
Allomalaic Acid (Fumaric Acid) Solution	Liquid	1	1	-	2	1	2	2	-	-	1	-	-	-	X	-	1	1	-	-	-
Allyl Alcohol	Colorless Liquid	1	1	1	1	1	-	1	1	1	1	1	1	X	X	-	-	-	-	-	-
Allyl Bromide	Colorless to Yellow Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Allyl Chloride	Colorless Liquid	1	1	X	X	X	X	X	X	X	1	-	2	1	X	-	1	1	-	-	2
Alpha Methylstyrene	Colorless Liquid	1	2	2	X	X	X	X	X	X	1	-	X	1	X	-	-	-	-	-	-
Alpha Olefin Sulfonate	Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Alpha Picoline	Colorless Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alum (Aluminum Sulphate or Other)	White Crystals	1	1	-	1	1	-	1	1	-	-	-	-	-	-	X	X	2	X	X	1
Alum, Potash (Aluminum Potassium Sulfate)	White Crystals	1	-	-	-	-	-	1	-	-	-	-	-	-	-	X	2	2	X	X	1
Alumina - Calcined (Conveyed Pneumatically)	Granular	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers														Couplings / Adapters					
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
		1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data NOTE: Ratings are for the affect on the polymer only!																			
Alumina Trihydrate (Conveyed Pnuematically)	White Crystalline Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Aluminum Acetate	White Powder	1	1	-	-	-	1	1	-	-	-	-	-	-	-	-	-	1	1	-	X
Aluminum Alkyl (ie Triethylaluminum)	Colorless Liquid	X	X	X	X	X	X	X	X	X	1	X	X	X	X	-	-	-	-	-	-
Aluminum Bromide	White to Yellow Crystals	1	1	-	1	1	1	1	1	1	1	1	-	-	-	X	2	2	-	X	-
Aluminum Chloride Solution	White to Yellow Solution	1	1	X	1	1	1	1	-	1	1	-	1	-	-	X	2	2	X	X	1
Aluminum Chloride, Anhydrous	White to Yellow Crystals	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Aluminum Chlorohydrate Solution (Up to 50%)	White Solution	1	1	1	1	1	-	-	-	1	1	-	1	-	-	-	-	-	-	-	-
Aluminum Fluoride	White Crystals	1	1	-	-	-	-	1	1	-	-	-	-	-	1	X	2	2	2	X	1
Aluminum Formate (Di & Tri In Water)	In Hot Water	1	1	1	1	1	X	X	-	1	1	-	1	-	-	-	-	-	-	-	-
Aluminum Hydroxide (Alumina Trihydrate)	In Mineral Acid or Caustic Soda	1	1	1	-	X	X	X	1	1	1	-	1	X	X	-	1	1	-	1	1
Aluminum Nitrate	In Cold Water	1	1	1	1	1	1	1	1	1	1	1	1	-	1	X	1	1	2	-	1
Aluminum Phosphate Solution	In HCl or HNO3 (slightly soluble)	1	1	1	-	X	X	X	X	-	1	-	-	X	X	-	-	-	-	-	-
Aluminum Salts	Varies	1	1	-	1	1	1	1	1	1	-	1	-	-	1	-	2	2	2	-	1
Aluminum Sulfate	White Crystals	1	1	-	1	1	-	1	1	-	-	-	-	-	X	X	2	X	X	1	-
Aluminum Sulfate Solution	In Water	1	1	1	1	1	1	1	-	1	1	-	1	-	-	X	X	2	X	X	1
Aluminum Sulfate Solution (49.7% H2O)	Liquid	1	1	1	1	1	1	1	1	1	1	-	1	1	1	X	X	2	X	X	1
Amines (A class of Organic Compounds)	Varies	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Amines (Aromatic - IE P-Toluidine)	White Plates (Solid)	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Amines (Mixed)	Varies	1	2	-	2	2	2	2	2	2	X	-	-	-	-	1	-	X	X	-	-
Amines (Primary, Secondary, Tertiary, Etc)	Varies	1	2	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-
Aminodiphenylamine	Purple Powder	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Aminoethanol (Ethanolamine)	Colorless Viscous Liquid	1	2	1	2	2	2	2	2	2	X	X	1	1	2	1	1	1	-	1	-
Aminoethylethanolamine	Liquid	1	2	1	2	-	-	-	-	1	-	-	1	1	-	-	-	-	-	-	-
Ammonia (Anhydrous)	Gas or liquid	NO HOSE AVAILABLE																			
Ammonia (Aqueous up to 30% NH3)	Colorless Liquid	1	1	1	1	1	1	1	1	1	2	1	1	1	1	-	1	1	-	X	1
Ammonia Liquor	Colorless Liquid	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammoniated Fatty Acid (ie Ammonium Caprylate)	Liquid above 167°F (75°C)	1	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Ammonium Acetate	In Water	1	1	1	1	1	1	1	2	1	1	-	1	2	1	-	1	1	-	X	1
Ammonium Bicarbonate	White Crystals	1	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	1
Ammonium Bisulfate (50%)	Colorless Liquid	1	1	1	1	-	-	-	-	1	1	-	1	-	-	-	-	-	-	-	-
Ammonium Carbonate	Colorless to White Powder	1	1	-	-	X	-	1	2	-	-	-	-	-	1	1	1	1	-	-	1
Ammonium Chloride	White Crystals	1	-	X	-	-	-	1	-	-	-	-	-	-	-	-	2	2	-	X	1
Ammonium Chloride Solution	Liquid	1	1	-	1	2	1	1	X	1	-	1	1	X	1	-	2	2	-	X	1
Ammonium Flouride	White Crystals	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonium Hydroxide (16%, 20%, 26%, & 30%)	Colorless Liquid	1	1	1	-	-	-	-	-	-	2	-	-	-	-	2	1	1	-	X	1
Ammonium Hydroxide (up to 30% NH3)	Colorless Liquid	1	1	1	1	2	X	2	2	2	2	1	1	X	X	2	1	1	-	X	1
Ammonium Metaphosphate	White powder	1	1	-	1	2	2	2	2	1	-	2	-	-	2	1	1	1	X	-	1
Ammonium Nitrate	Colorless Crystals	1	1	-	-	-	-	1	-	-	-	-	-	-	-	1	1	1	2	X	1
Ammonium Nitrate Fertilizer (20.5% N or 33.5% N)	Aggregate	1	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1	1	2	X	1
Ammonium Nitrate Prills and Oil	Aggregate	1	-	-	-	1	-	1	-	-	-	-	-	-	-	1	1	1	2	X	1
Ammonium Nitrate Solution (up to 83%)	Liquid	1	1	1	1	1	-	1	1	-	1	1	1	-	1	1	1	2	X	1	-
Ammonium Nitrite	Colorless crystal	1	1	-	-	X	X	X	2	-	-	-	1	-	-	-	1	1	-	-	1
Ammonium Persulfate	Solution in Water	1	1	-	-	X	-	X	-	X	-	-	-	-	-	-	1	1	-	X	X
Ammonium Phosphate	White Crystals or Powder	1	-	-	-	-	-	1	-	-	-	-	-	-	-	X	2	1	X	-	1
Ammonium Phosphate Solutions	Liquid	1	1	1	1	1	1	1	1	1	1	1	1	-	1	X	2	1	X	-	1
Ammonium Polysulfide Solution	Yellow Solution	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonium Sulfate	Gray to White Crystals	1	1	-	-	-	-	1	-	-	-	-	1	-	-	1	1	1	X	X	1
Ammonium Sulfide	Yellow Crystals	1	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1	1	X	1
Ammonium Sulfide Solution (40-44% or less)	Liquid	1	1	-	1	2	1	1	-	1	1	1	1	-	1	1	1	1	X	X	1
Ammonium Thiocyanate (50-60% or less)	In Water	1	1	1	1	1	1	1	1	-	1	1	1	-	-	1	1	1	-	-	1
Amyl Acetate (Banana or Pearl Oil)	Colorless Liquid	1	1	1	2	X	X	X	X	2	X	X	X	1	X	X	1	1	X	1	X
Amyl Alcohol	Colorless Liquid	1	2	2	2	2	2	2	2	2	1	2	1	1	2	1	1	1	1	1	-

CHEMICAL RESISTANCE TABLE

THE WORLD OF HOSE

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers													Couplings / Adapters						
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
Amyl Chloride (Chloropentane)	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	-	X	-	1	1	-	-	X	
Amyl Chlorides (mixed)	Straw to Purple Liquid	1	2	2	X	X	X	X	X	X	1	X	2	1	X	-	1	1	-	-	X
Amyl Chloronaphthalene	-	1	1	2	X	X	X	X	X	X	1	X	X	1	-	-	1	1	-	-	-
Amyl Naphthalene	-	1	1	-	X	X	X	X	X	X	1	X	X	-	-	-	1	1	-	-	-
Amyl Phenol	Clear Straw Colored Liquid	1	2	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	
Amylamine	Colorless Liquid	1	X	-	X	2	-	X	X	X	X	X	-	-	-	-	-	-	-	-	-
Amylbenzene (sec amylbenzene)	Clear Liquid	1	2	2	X	2	X	X	2	X	1	-	-	-	-	-	-	-	-	-	-
Anethole (anis camphor)	White Crystals/Liquid > 73°F(23°C)	1	2	-	-	X	X	X	X	X	1	X	X	X	-	2	1	1	2	X	1
Anhydrous Ammonia (R 717)	Gas or Liquid	NO HOSE AVAILABLE																			
Aniline	Colorless Oily Liquid	1	2	X	2	X	X	X	X	2	1	X	2	X	-	2	1	1	2	X	1
Aniline Dyes	-	1	1	-	2	X	X	X	X	2	2	X	2	-	-	X	1	1	-	-	2
Aniline Hydrochloride	White Crystals	1	1	-	2	2	2	2	X	2	-	-	-	-	-	X	X	-	X	2	
Aniline Oil (Aniline)	Colorless Oily Liquid	1	2	X	2	X	X	X	X	2	1	X	2	X	-	2	1	1	2	X	1
Animal Fat (Lard)	White Solid/Liquid > 108°F(42°C)	1	1	1	X	1	X	X	2	X	1	X	1	1	-	1	1	1	1	X	-
Animal Gelatin	-	1	-	1	-	1	-	-	1	-	-	-	-	-	-	1	1	1	-	-	-
Animal Grease, Inedible, Liquid	Liquid	1	-	-	X	1	-	X	2	X	1	2	-	-	-	-	-	-	-	-	-
Animal Oils	Solid to Liquid	1	-	-	-	1	-	-	2	-	-	-	1	1	1	1	1	1	1	-	-
Ant Oil (Furfural)	Colorless to Reddish Brown Liquid	1	1	-	X	X	X	X	2	X	2	2	1	-	X	2	1	1	1	1	2
Antifreeze (Glycol Base)	Liquid	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Antimony Chloride (50%)	White Powder	1	1	1	-	-	-	-	2	1	-	-	1	1	X	X	X	-	-	1	-
Antimony Pentachloride	Reddish-yellow Liquid	1	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Antimony Salts	White Crystal	1	1	-	1	2	-	-	-	1	1	-	-	-	-	1	-	-	-	-	-
Aqua Ammonia (Ammonium Hydroxide) (30%)	Colorless Liquid	1	1	1	1	2	2	2	2	2	2	1	1	X	X	2	1	1	-	X	1
Aqua Regia (Nitrohydrochloric Acid)	Fuming Yellow Liquid	1	2	X	X	X	X	X	X	X	1	X	2	X	X	-	X	X	-	-	X
Argon, Compressed	Colorless Gas	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-
Aromatic Hydrocarbons	Typically Colorless Liquids	1	2	2	X	2	X	X	X	X	1	X	X	1	X	1	1	1	2	2	-
Arsenic Acid	In Water	1	1	1	2	-	X	X	-	2	1	-	1	-	-	2	-	1	2	-	2
Arsenic Trioxide	In Acid	1	1	1	X	2	X	X	2	X	1	X	-	-	1	-	-	-	-	-	-
Askarel (Transformer Oil)	Varies	1	2	2	X	X	X	X	X	X	1	X	1	X	1	X	1	1	-	1	2
Asphalt	Varies	1	2	X	X	2	X	X	-	X	1	-	-	X	X	1	1	1	-	1	-
Asphalt (Blown)	Black Solid	-	-	X	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Asphalt (Cut Back)	Black Liquid	1	X	X	X	2	X	X	2	X	1	X	X	2	X	1	1	1	-	1	-
Asphalt Emulsion	Black Liquid	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Asphalt Paint	Black Liquid	1	2	X	X	2	X	X	-	X	1	X	-	2	X	-	-	-	-	-	-
Asphaltene	In Carbon Disulfide	1	2	X	X	2	X	X	2	X	1	X	X	1	-	-	-	-	-	-	-
ASTM Oil No. 1	Brown Liquid	1	1	1	X	1	X	X	1	X	1	2	1	1	2	1	1	1	1	1	2
ASTM Oil No. 2	Brown Liquid	1	1	1	X	1	X	X	2	X	1	2	1	1	X	1	1	1	1	1	X
ASTM Oil No. 3	Brown Liquid	1	1	1	X	1	X	X	X	X	1	X	1	1	X	1	1	1	1	1	X
ASTM Reference Fuel A	Liquid	1	1	1	X	1	X	X	1	X	1	1	1	1	2	1	1	1	1	1	X
ASTM Reference Fuel B	Liquid	1	2	1	X	1	X	X	2	X	1	X	2	1	X	1	1	1	1	1	X
ASTM Reference Fuel C	Liquid	1	2	2	X	2	X	X	X	X	1	X	2	1	X	1	1	1	-	1	X
ATF (Automatic Transmission Oil)	Liquid	1	1	1	X	1	-	-	-	X	1	-	1	-	-	-	-	-	-	-	-
B																					
Baltic Types 100, 150, 200, 300, 500	Liquid	1	1	-	X	1	-	-	-	X	-	-	-	-	2	-	-	-	-	-	2
Banvel (Ag Spray, Concentrated)	Liquid	1	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Bardol B	Dark colored Liquid	1	1	-	X	X	X	X	X	X	2	X	-	-	-	1	1	1	-	-	-
Barite (Natural Barium Sulfate)	White to Yellowish Powder	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1	1	-	2	1
Barium Carbonate	White Powder	1	1	-	X	1	X	1	1	X	1	X	X	-	1	2	1	1	-	1	1
Barium Chloride	Colorless Crystals	1	1	1	1	1	1	1	1	1	1	1	1	1	X	1	X	1	-	2	1
Barium Hydroxide	White Powder	1	1	1	1	1	X	1	1	1	1	-	1	1	-	X	2	1	1	-	1
Barium Sulfate	White to Yellowish Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1	1	-	2	1
Barium Sulfide	Yellowish Green to Gray Powder	1	1	1	-	-	-	1	-	-	1	-	-	-	-	X	1	1	-	X	1

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers														Couplings / Adapters						
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro	
Basic Copper Arsenate	Blue to Green Powder	1	1	-	-	-	2	1	-	-	1	2	-	-	1	1	1	1	-	-	-	
BBP (Butyl Benzyl Phthalate)	Clear Oily Liquid	1	-	-	-	X	-	X	-	1	X	X	-	-	-	-	-	-	-	-	-	
Beer	Yellow Liquid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Beet Sugar Liquors	Colorless Solution	1	1	1	1	1	1	1	1	1	1	1	1	1	1	X	X	X	X	-	X	
Bellows 80-20 Hydraulic Oil	Liquid	1	1	-	X	1	-	-	-	X	-	-	-	-	2	-	-	-	-	-	X	
Benzaldehyde (Benzoic Aldehyde)	Colorless to Yellow Liquid	1	1	1	2	X	X	X	X	X	2	X	X	2	2	X	1	-	-	1	-	1
Benzene (Benzol)	Colorless to Yellow Liquid	1	2	X	X	X	X	X	X	X	1	X	X	1	X	1	1	1	1	1	1	X
Benzenesulfonic Acid	Liquid above 151°F (66°C)	1	1	1	-	-	X	X	X	2	1	2	-	-	X	X	-	2	X	-	1	
Benzidine	Paste	1	2	-	X	2	X	1	X	X	-	-	-	-	X	1	1	1	1	1	1	X
Benzoic Acid	White Crystals	1	1	1	2	X	X	X	X	2	1	2	1	-	X	-	-	-	-	-	-	
Benzoic Aldehyde (Benzaldehyde)	Colorless to Yellow Liquid	1	1	1	2	X	X	X	X	2	X	X	2	2	X	1	-	-	1	-	1	
Benzol (Benzene)	Colorless to Yellow Liquid	1	2	X	X	X	X	X	X	X	1	X	X	1	X	1	1	1	1	1	1	X
Benzophenone	White Powder	1	1	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	
Benzotrichloride	Colorless to Yellow Liquid	1	-	-	X	X	X	X	X	X	1	-	X	2	X	-	-	-	-	-	-	
Benzyl Acetate	Water White Liquid	1	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Benzyl Alcohol	Water White Liquid	1	1	1	2	X	X	X	X	1	1	X	1	X	1	-	-	-	-	-	-	
Benzyl Alcohol, Photo Inhibited	Water White Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	1	
Benzyl Benzoate	Water White Liquid	1	1	-	2	-	-	-	-	2	1	-	-	-	-	1	1	1	-	-	-	
Benzyl Chloride	Colorless Liquid	1	2	2	X	X	X	X	X	X	1	-	X	2	X	1	-	-	-	-	-	
Bicarbonate Of Soda	White Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bismuth Carbonate	White Powder	1	-	-	-	-	-	1	X	-	-	-	-	-	-	1	1	1	-	-	1	
Bisphenol A	White Flakes	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bitumastic	Liquid	1	-	X	X	2	X	X	2	X	2	X	2	-	-	1	1	1	-	1	-	
Black Liquor (RXN Product Pulpwood+NaOH)	Black Alkaline Liquid	1	1	1	2	2	X	X	2	2	1	2	2	-	1	1	1	1	-	-	1	
Black Sulfate Liquor (See "Black Liquor")	Black Alkaline Liquid	1	1	1	2	2	X	X	2	2	1	2	2	-	1	1	1	1	-	-	1	
Blast Furnace Gas (Cooled)	Gas	1	1	-	-	X	X	X	X	X	1	X	-	-	X	1	1	1	-	1	-	
Bleach (Chlorinated Lime)	White Powder (35-37% Cl)	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bleach Liquor (Calcium Hypochlorite/H2O)	Clear Solution	1	1	1	2	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	
Borax (Sodium Borate)	White Crystals	1	1	-	1	1	1	1	1	1	1	1	1	1	1	2	1	1	-	2	1	
Bordeaux Mixture (Slaked Lime & Copper Sulfate)	In Water	1	1	1	1	1	2	2	2	1	1	-	-	-	1	-	1	1	-	-	-	
Boric Acid	White Powder or Colorless Scale	1	1	1	1	1	1	1	1	1	1	1	1	X	1	X	2	1	1	X	1	
Boric Oxide	Colorless Powder	1	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	
Brake Fluid (Petroleum Base)	Liquid	1	1	-	X	1	X	X	2	X	1	X	1	1	2	1	1	1	-	1	X	
Brake Fluid (Synthetic Base)	Liquid	1	1	-	1	X	X	X	X	1	X	X	1	-	2	1	1	1	-	1	-	
Brine (Salt)	Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	-	2	1	
Bromine	Dark Reddish Brown Liquid	1	-	-	X	X	-	-	X	-	1	-	-	X	X	1	1	1	1	1	-	
Bromobenzene	Colorless Liquid	1	-	-	X	-	X	X	-	X	1	-	-	-	X	-	-	-	-	-	-	
Bromochloroethane	Colorless Liquid	-	-	X	X	-	X	X	-	X	X	-	X	X	-	-	-	-	-	-	-	
Bromochloromethane (Chlorobromomethane)	Clear Liquid	1	2	X	X	X	X	X	X	X	X	X	X	X	X	1	1	1	-	1	X	
Bromotoluene	Clear Liquid	1	-	-	X	-	X	X	-	X	1	-	X	-	X	-	-	-	-	-	-	
Bubble Bath Compounds	Liquid	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bunker Oil	Liquid	1	2	2	X	1	X	X	2	X	1	X	-	1	X	1	1	1	1	1	-	
Butadiene (1,3)	Gas	1	1	-	X	2	X	X	X	X	1	X	-	1	X	-	1	1	-	1	1	
Butanal (Butyraldehyde)	Water White Liquid	1	2	-	X	X	X	X	X	X	X	X	2	-	-	-	-	-	-	1	-	
Butandiol (Butylene Glycol)	Colorless Oily Liquid	1	1	2	-	-	-	-	-	-	1	-	-	X	-	-	-	-	-	-	-	
Butane (Gas)	Colorless Gas	USE LPG HOSE ONLY														-	-	-	-	-	-	
Butane (Liquid)	Liquid	USE LPG HOSE ONLY														-	-	-	-	-	-	
Butanol (Butyl Alcohol)	Colorless Liquid	1	1	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1	
Butter	Yellow to white semi-Solid to Liquid	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	
Butter Oil (Use FDA Hose)	Yellow to white Liquid	1	-	-	-	-	X	X	2	-	-	-	-	-	-	1	1	1	1	1	-	
Butyric Acid	Colorless Liquid	1	1	1	2	-	2	2	X	2	1	X	1	X	-	-	-	-	-	-	-	
Butyl Carbitol (Diethylene Glycol Butyl Ether)	Colorless Liquid	1	1	-	2	2	X	X	2	2	1	-	1	-	-	1	1	1	1	1	-	

CHEMICAL RESISTANCE TABLE

THE WORLD OF HOSE

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers														Couplings / Adapters					
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
		1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data NOTE: Ratings are for the affect on the polymer only!																			
Butyl Cellulosolve (EG Monobutyl Ether)	Colorless Liquid	1	1	-	1	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-
Butyl "Oxito™" for EG Monobutyl Ether	Colorless Liquid	1	1	-	1	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-
Butyl Acetate	Colorless Liquid	1	2	2	X	X	X	X	X	2	X	X	2	1	1	2	1	1	1	1	X
Butyl Acrylate	Colorless Liquid	1	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-
Butyl Alcohol (Butanol)	Colorless Liquid	1	1	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1	1	1	1
Butyl Aldehyde	Water White Liquid	1	-	-	2	X	-	-	X	-	X	X	-	-	-	-	-	-	-	-	-
Butyl Benzyl Phthalate (BBP)	Clear Oily Liquid	1	-	-	-	X	-	X	-	1	X	X	-	-	-	-	-	-	-	-	-
Butyl Chloride	Colorless Liquid	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Butyl Ether	Colorless Liquid	1	1	-	-	2	X	X	2	2	X	-	1	-	-	1	1	1	1	1	-
Butyl Ethyl Ether (Ethyl-n-Butyl Ether)	Liquid	1	-	-	-	2	-	X	-	X	-	2	-	-	-	-	-	-	-	-	-
Butyl Formate	Colorless Liquid	1	-	-	-	X	-	X	X	-	-	-	-	-	-	-	-	-	-	-	-
Butyl Mercaptan [2-Methyl-2-Butanathiol]	Liquid	1	1	-	X	-	X	X	-	X	1	-	-	-	X	-	1	1	-	-	-
Butyl Methacrylate	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl Stearate	Colorless Liquid	1	1	-	X	2	X	X	X	X	1	-	2	-	1	1	1	1	1	1	-
Butylamine	Colorless Liquid	1	1	-	-	X	X	X	X	X	X	2	-	-	-	1	1	1	1	1	X
Butylene Glycol (Butandiol)	Colorless Oily Liquid	1	1	2	-	-	-	-	-	-	1	-	-	X	-	-	-	-	-	-	-
Butyraldehyde (Butanal)	Water White Liquid	1	2	-	X	X	X	X	X	X	X	2	-	-	-	-	-	-	-	1	-
Butyric Acid	Colorless Liquid	1	1	1	1	-	-	-	-	1	1	X	1	1	1	X	1	1	1	2	-
Butyric Anhydride	Water White Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C																					
Cadmium Acetate (Soluble in H2O & Alcohols)	In Water or Alcohol	1	-	-	-	X	-	X	-	1	X	-	-	-	-	-	-	-	-	-	-
Cake Alum (Aluminum Sulfate)	White Crystals	1	1	-	1	1	-	1	1	-	-	-	-	-	-	X	X	2	X	X	1
Cake Alum Solution (Al Sulphate up to 50%)	In Water	1	1	1	1	1	-	-	-	1	1	-	1	1	1	-	-	-	-	-	-
Calcine Liquor (Radioactive Waste)	In Water Solution	1	1	-	1	1	-	-	-	1	1	-	-	-	-	1	1	1	2	-	-
Calcium Acetate	Powder	1	1	-	1	X	2	2	X	1	X	X	1	-	-	1	1	1	1	1	-
Calcium Aluminate (Soluble in Acids)	In Acid	1	-	-	-	1	-	1	1	1	1	1	-	-	-	-	-	-	-	-	-
Calcium Aluminate (Tricalcium Aluminate)	Crystals or Powder	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium Arsenate	In Dilute Acid	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Calcium Bisulfide (Calcium Hydrosulfide)	In Alcohol or Water	1	1	-	-	1	2	2	1	1	1	1	1	-	2	-	2	1	-	X	1
Calcium Bisulfite (Calcium Hydrogen Sulfite)	Yellow Liquid	1	1	-	-	1	2	2	1	1	1	1	1	-	1	-	1	1	-	-	1
Calcium Bromide Solution	In Water or Alcohol	1	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Calcium Carbonate	Solid White Powder	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Calcium Carbonate Slurry	Solid in H2O	1	-	-	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-
Calcium Chlorate	In Water or Alcohol	1	1	-	2	1	2	2	1	2	-	1	-	-	1	-	2	1	-	-	1
Calcium Chloride, Dry	White solid	-	-	-	-	-	1	-	-	-	-	-	-	-	-	X	2	1	-	2	1
Calcium Chloride, Liquid (Not For Food)	In Water or Alcohol	1	1	-	1	1	1	1	1	1	1	1	1	X	1	-	-	-	-	-	-
Calcium Chloride, Liquid, Food Grade 33%	In Water	1	-	-	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-
Calcium Hydrogen Sulfite (Calcium Bisulfite)	Yellow Liquid	1	1	-	-	1	2	2	1	1	1	1	1	-	1	-	1	1	-	-	1
Calcium Hydrosulfide (Calcium Bisulfide)	In Alcohol or Water	1	1	-	-	1	2	2	1	1	1	1	1	-	2	-	2	1	-	X	1
Calcium Hydroxide (Hydrated or Slaked Lime)	Solid White Powder	1	1	-	-	2	1	1	1	1	X	1	1	-	X	X	X	1	-	2	1
Calcium Hydroxide Solutions	In Glycerol or Acids	1	1	X	-	2	-	-	-	-	-	-	X	-	2	1	1	X	X	-	-
Calcium Hypochlorite	Solid White Crystals	1	2	X	-	-	X	X	X	2	-	2	1	X	2	-	-	-	-	-	-
Calcium Hypochlorite Solutions	In Water or Alcohol	1	1	X	-	-	X	X	X	2	-	2	1	-	1	-	X	2	X	X	1
Calcium Metasilicate (Calcium Silicate)	White Powder	1	1	-	-	2	2	1	-	2	1	2	1	-	1	1	1	1	1	1	-
Calcium Nitrate Solutions	In Water, Alcohol, or Acetone	1	1	-	1	1	1	1	1	1	1	1	1	-	1	1	1	1	1	1	1
Calcium Oxide (Lime; quick, unslaked)	White to Gray Lumps	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2	-	-	-
Calcium Silicate (Calcium Metasilicate)	White Powder	1	1	-	-	2	2	1	-	2	1	2	1	-	1	1	1	1	1	1	-
Calcium Stearate	White Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Calcium Sulfate	White Powder or Crystals	1	1	-	1	1	-	1	1	1	1	1	1	-	-	1	1	1	-	1	1
Calcium Sulfide	Yellow to Gray Powder	1	1	-	-	1	2	1	2	1	2	1	1	-	2	1	1	1	2	-	-
Calcium Sulfite (Soluble In Sulfurous Acid)	In Acid	1	1	1	1	-	-	-	-	X	1	-	1	-	-	-	-	-	-	-	-
Caliche Liquors (Sodium Nitrate)	In Water	1	1	-	-	1	2	2	-	1	-	1	-	-	-	-	1	1	-	-	-

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers														Couplings / Adapters					
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
		1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data NOTE: Ratings are for the affect on the polymer only!																			
Camphene (Liquid above 115°F [46°C])	Liquid above 115°F [46°C]	1	-	-	X	-	-	-	-	-	1	X	-	-	-	-	-	-	-	-	-
Cane Sugar Liquors	In Water	1	1	-	2	1	2	2	1	2	-	1	1	-	1	1	1	1	1	2	1
Caproic Acid	Colorless or Yellow Liquid	1	1	1	2	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Caprolactam	White Flakes	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Caprolactam, Molten (above 156°F [69°C])	Liquid	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
Caprylic Acid [Octanoic Acid]	Colorless, Oily Liquid	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Carbamates	Crystals	1	1	-	X	X	X	X	X	X	2	X	-	-	-	-	-	-	-	-	-
Carbolic Acid	Liquid above 109°F [43°C]	1	2	2	2	X	X	X	X	2	1	X	1	X	X	X	1	1	2	X	-
Carbolic Acid [Phenol]	White or Pink Crystals	1	2	-	2	X	X	X	X	2	1	X	1	X	X	X	1	1	2	X	-
Carbolic Acid [Phenol, 82-95% in Creosols]	Liquid	1	2	-	2	X	X	X	X	2	2	X	1	X	X	X	1	1	2	X	-
Carbon Dioxide (Dry)	Gas	1	1	-	1	1	1	1	1	1	1	1	-	-	1	1	1	1	1	1	1
Carbon Dioxide (Wet)	Gas with Water Vapor	1	1	1	2	1	2	2	1	2	1	1	-	-	1	1	1	1	1	1	1
Carbon Disulfide	Clear to Faint Yellow Liquid	1	2	1	X	2	X	X	X	X	1	X	2	1	X	2	1	1	2	2	X
Carbon Monoxide	Gas	1	2	1	1	2	X	X	2	X	1	1	-	-	1	1	1	1	1	1	1
Carbon Tetrachloride (Pyrene)	Colorless Liquid	1	2	X	X	X	X	X	X	X	1	X	2	1	X	X	2	2	X	2	X
Carbolic Acid	Liquid	1	1	1	1	1	1	1	1	1	1	1	1	-	X	X	1	1	2	X	1
Carbonyl Chloride (Phosgene)	Gas/ Liquid	1	X	X	X	X	X	X	X	1	1	X	-	2	-	-	-	-	-	-	-
Casein [White amorphous solid]	In Concentrated Acid	1	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-
Castor Oil	Pale Yellow or Colorless Liquid	1	1	-	-	1	X	X	1	2	1	1	1	-	1	1	1	1	1	1	1
Caustic Potash, Dry [Potassium Hydroxide]	White pellets or flakes	1	1	-	2	X	2	1	2	1	1	1	1	X	X	-	-	-	-	-	-
Caustic Potash, Liquid (up to 45%)	Solution in Water	1	1	1	2	2	2	2	-	1	2	-	1	1	1	-	-	-	-	-	-
Caustic Soda, Dry [Sodium Hydroxide]	White beads or pellets	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Caustic Soda, Liquid (up to 73%)	Solution in Water	1	2	-	2	X	1	1	2	2	X	1	1	2	X	-	-	-	-	-	-
Cellosolve Acetate [Eg Ethyl Ether Acetate]	Colorless Liquid	1	1	-	2	X	-	-	-	X	-	1	-	1	1	1	1	-	-	1	-
Cellosolve Butyl [Eg Butyl Ether]	Colorless Liquid	1	1	-	2	X	-	-	-	X	-	1	-	1	1	1	1	-	-	1	-
Cellulose	Solid, many forms	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-
Cement, Portland	Gray Powder	1	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
China-Wood Oil [Tung Oil]	Yellow Oil	1	2	-	X	2	X	X	X	X	1	2	-	-	2	1	1	1	1	1	-
Chlordane	Colorless Viscous Liquid	1	1	-	X	X	-	-	X	-	1	X	-	1	2	-	-	-	-	-	-
Chlorinated Napthalene [Chloronapthalene]	Oily Liquid to Solid	1	-	-	X	X	X	X	X	X	1	X	-	-	-	-	-	-	-	-	-
Chlorinated Solvents [ie Tetrachloroethane]	Colorless Liquid	1	X	X	X	-	X	X	-	X	1	X	X	1	X	-	-	-	-	-	-
Chlorine	Gas	NO HOSE AVAILABLE																			
Chlorine Liquid [Liquid @ 210 PSIG @ 120°F [38°C]	Clear Amber Liquid	1	-	-	X	-	-	-	-	-	1	-	-	X	X	-	-	-	-	-	-
Chlorine Trifluoride	Pale Green Liquid	1	-	-	X	-	-	-	-	-	1	-	-	-	X	-	-	-	-	-	-
Chlorine Water [3% Chlorine]	Clear, yellowish Liquid	1	1	1	X	-	-	-	-	-	1	-	-	-	-	-	X	X	-	-	1
Chloroacetic Acid [Monochloroacetic Acid]	Powder or White Crystals	1	1	X	X	X	X	X	X	X	1	2	-	-	-	-	-	-	-	-	-
Chloroacetic Acid Under 100°F [38°C]	Solid	1	1	1	X	X	X	X	X	X	1	2	-	-	-	-	-	-	-	-	-
Chloroacetic Acid Solution	In Water, Alcohol, Ether	1	1	X	2	-	-	-	-	-	-	-	-	X	-	X	X	X	-	2	1
Chloroacetone	Colorless Liquid	-	-	-	1	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-
Chloroacetyl Chloride	Water White Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Chloroaniline	Amber Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene [Phenyl Chloride] [Monochlorobenzene]	Clear Liquid	1	2	-	X	X	X	X	X	X	1	X	X	X	X	1	1	1	1	1	X
Chlorobromomethane [Bromochloromethane]	Clear Liquid	1	2	X	X	X	X	X	X	X	X	X	X	X	X	1	1	1	-	1	X
Chlorodifluoromethane [Freon 22]	Gas	SPECIAL HOSE REQUIRED																			
Chloroethane [Ethylene Dichloride]	Colorless Liquid	1	2	2	X	X	X	X	X	X	1	X	X	X	X	-	-	-	-	-	-
Chloroform	Colorless Liquid	1	2	2	X	X	X	X	X	X	1	X	X	2	X	1	1	1	1	1	X
Chloronapthalene [Chlorinated Napthalene]	Oily Liquid to Solid	1	-	-	X	X	X	X	X	X	1	X	-	-	-	-	-	-	-	-	-
Chloropentane [n-amyl chloride]	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	X	-	1	1	-	-	X
Chlorophenol	In Benzene, Alcohol, Ether	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloropicrin Mixture	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-
Chloropropylene Oxide [Epichlorohydrin]	Volatile Liquid	1	2	-	X	-	-	-	-	-	X	-	-	-	-	1	-	-	-	-	1
Chlorosulfonic Acid	Colorless to Light Yellow Liquid	NO HOSE AVAILABLE																			

CHEMICAL RESISTANCE TABLE

THE WORLD OF HOSE

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers													Couplings / Adapters						
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
Chlorothene (TM for chlorinated solvents)	Colorless Liquid	1	1	X	-	X	-	-	X	-	2	-	-	-	-	1	1	-	1	-	
Chlorotoluene	Colorless Liquid	1	-	-	X	X	X	X	X	X	1	X	X	-	X	1	1	1	1	1	
Chlorox	Colorless Liquid	1	2	1	-	-	2	2	2	2	2	1	1	1	-	2	1	-	-	X	
Chocolate Syrup	Liquid	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	
Chrome Alum (Chromium Potassium Sulfate)	In Water	1	1	-	1	1	1	1	1	1	1	1	-	1	1	-	-	-	-	1	
Chromic Acid (100%)	Dark Red Crystals	1	X	2	-	-	-	-	-	1	-	-	-	X	X	X	X	X	X	-	
Chromic Acid (25% Solution or less)	In Water	1	1	1	2	X	X	X	X	X	1	2	1	X	X	X	X	2	X	1	
Chromic Acid (50% Solution with water)	In Water	1	1	1	2	X	X	X	X	X	1	2	1	X	X	X	X	2	X	1	
Chromic Acid (Chromium Trioxide)	Purplish-Red Crystals	1	X	2	-	-	-	-	-	-	1	-	-	-	X	X	X	2	X	1	
Chromic Chloride	In Water	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	
Chromium Trioxide (Chromic Acid)	Purplish-Red Crystals	1	X	2	-	-	-	-	-	1	-	-	-	X	X	X	2	X	X	1	
Cider	Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	
Cinene (Dipentene)	Colorless Liquid	1	2	-	X	X	X	X	-	1	-	-	-	-	-	-	-	-	-	-	
Citgo FR Fuels	Liquid	1	1	-	1	X	-	-	-	1	-	-	-	2	-	-	-	-	-	-	
Citric Acid Solution	In Water	1	1	1	2	X	2	2	1	2	1	1	-	X	1	X	X	1	1	X	2
Coal Gas (Coke Oven Gas, Max 120°F (49°C))	Gas	1	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	
Coal Tar	Black, viscous Liquid	1	-	-	X	2	X	X	2	X	1	X	2	X	X	1	1	1	1	1	
Coal Tar Pitch (Roofing)	Liquid above 212°F (100°C)	1	-	-	X	2	X	X	2	X	1	2	2	-	X	-	-	-	-	-	
Cobalt Nickel Plating Solution	Liquid	1	1	-	-	-	-	-	-	-	-	-	-	X	-	-	2	-	-	-	
Cocoa Butter (Theobroma Oil)	Liquid above 95°F (35°C)	1	1	2	-	2	X	X	2	-	-	-	-	-	1	1	1	-	-	-	
Coconut Oil	Liquid above 77°F (25°C)	1	-	-	2	1	X	X	1	2	1	2	-	1	2	-	-	-	-	-	
Cod Liver Oil	Pale Yellow Liquid	1	1	-	2	X	X	X	X	2	1	X	-	-	-	1	1	1	1	1	
Coke Oven Gas (300°F (149°C) or less)	Gas	1	1	-	X	X	X	X	X	X	1	2	-	-	-	1	1	1	2	-	1
Copper Arsenate (Cupric Arsenate)	In Dilute Acid	1	1	-	-	-	2	2	-	-	1	2	-	-	-	1	1	1	-	-	
Copper Chloride (Cupric Chloride)	In Water	1	1	-	-	2	2	2	2	2	1	2	2	X	1	X	X	1	-	X	1
Copper Cyanide (Cupric Cyanide)	In Dilute Acids or Alkalies	1	1	-	2	2	2	2	2	2	1	2	-	-	1	-	1	1	-	X	1
Copper Nitrate (Cupric Nitrate)	In Water	1	1	-	1	1	2	2	1	1	1	1	1	-	1	X	1	1	-	X	1
Copper Sulfate (Cupric Sulfate)	In Water	1	1	-	2	1	2	2	1	2	1	1	1	X	1	X	1	1	X	X	1
Copper Sulfide (Soluble in Nitric Acid)	In Nitric Acid	1	-	-	-	1	-	X	-	1	1	1	-	-	-	-	-	-	-	-	-
Corn Oil	Pale Yellow Liquid	1	1	-	2	2	X	X	2	2	1	X	2	-	1	1	1	1	1	1	X
Corn Syrup (Glucose Syrup)	Clear Liquid	1	2	-	2	2	2	2	2	2	2	2	-	-	-	1	1	1	1	-	-
Cottonseed Oil	Liquid, several colors	1	1	-	2	2	-	-	1	-	1	2	2	-	-	1	1	1	1	1	1
Creosote (high Napthalene/Anthracene)	Liquid	X	2	X	-	2	X	X	X	2	1	X	-	-	X	2	1	1	1	X	2
Cresol (Methyl Phenol)	Liquid above 95°F (35°C)	1	2	-	-	X	X	X	X	2	1	X	1	X	-	2	1	1	1	-	2
Cresylic Acid	Liquid	1	-	-	X	X	X	X	X	X	1	X	-	X	-	-	-	-	-	-	-
Crotonic Acid (Methylacrylic Acid)	White Crystalline Solid	1	1	1	2	2	X	X	-	1	1	-	1	X	-	1	X	-	-	-	-
Crude Oil (Crude Petroleum Oil)	Liquid	1	1	-	X	1	X	X	2	X	1	2	2	-	1	1	1	1	1	1	1
Crude Wax	Liquid above 200°F (93°C)	1	2	-	-	2	-	-	-	2	1	-	-	-	1	1	1	1	-	1	1
Cryolite (Greeland Spar)	In Sulfuric Acid	1	2	-	X	1	X	X	2	X	1	X	-	-	-	1	1	1	-	1	X
Cumene (Isopropyl Benzene)	Colorless Liquid	1	2	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-	-
Cupric Arsenate (Copper Arsenate)	In Dilute Acid	1	1	-	-	-	2	2	-	-	1	2	-	-	-	1	1	1	-	-	-
Cupric Chloride (Copper Chloride)	In Water	1	1	-	-	2	2	2	2	2	1	2	2	X	1	X	X	1	-	X	1
Cupric Cyanide (Copper Cyanide)	In Dilute Acids or Alkalies	1	1	-	2	2	2	2	2	2	1	2	-	-	1	-	1	1	-	X	1
Cupric Nitrate (Copper Nitrate)	In Water	1	1	-	1	1	2	2	1	1	1	1	1	-	1	X	1	1	-	X	1
Cupric Sulfate (Copper Sulfate)	In Water	1	1	-	2	1	2	2	1	2	1	1	1	X	1	X	1	1	X	X	1
Cutting Oil (Mineral Oil Base)	Liquid	1	2	-	X	1	X	X	2	X	1	X	-	-	-	1	1	1	-	1	X
Cutting Oil, Sulfur Base	Liquid	2	-	-	-	1	-	-	X	-	-	-	-	-	-	1	1	1	-	1	1
Cutting Oil, Water Soluble	Liquid	1	-	-	-	1	-	-	X	-	-	-	-	-	-	1	1	1	-	1	1
Cyanide, Copper (Cupric Cyanide)	In Dilute Acids or Alkalies	1	1	-	2	2	2	2	2	2	1	2	-	-	1	-	1	1	-	X	1
Cyanide, Mercuric	In Water	1	1	-	2	2	2	2	1	2	-	1	-	-	-	-	-	-	X	-	1
Cyanide, Potassium	In Water	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Cyanide, Silver	In Nitric Acid	1	1	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	1

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers														Couplings / Adapters						
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro	
		1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data NOTE: Ratings are for the affect on the polymer only!																				
Cyanide, Sodium	In Water	1	1	-	1	1	1	1	1	1	1	1	1	1	1	2	1	1	X	X	-	
Cyclohexane	Colorless Liquid	1	2	1	X	2	X	X	X	X	1	X	1	-	X	1	1	1	-	1	X	
Cyclohexanol	Colorless, oily Liquid	1	2	-	X	2	X	X	2	X	1	2	1	-	X	-	-	-	-	-	1	
Cyclohexanone	Colorless to yellow Liquid	1	1	-	X	X	X	X	X	X	X	X	2	-	X	-	1	1	2	-	X	
Cyclohexylamine	Colorless Liquid	-	-	-	1	-	X	-	-	1	X	-	-	-	-	-	-	-	-	-	-	
Cyclopentane	Colorless Liquid	1	-	-	X	2	-	X	2	X	1	X	-	-	-	-	-	-	-	-	-	
Cyclopentanol	Colorless Liquid	1	-	-	-	2	-	X	-	X	2	X	-	-	-	-	-	-	-	-	-	
Cyclopentanone	Water white Liquid	-	-	-	X	-	X	-	X	X	X	X	-	-	-	-	-	-	-	-	-	
Cymene	Colorless Liquids	1	2	-	X	X	X	X	X	X	2	X	2	-	X	1	1	1	1	1	1	
Cymene (Isopropyltoluene)	Colorless Liquid	1	-	-	-	-	-	-	-	-	1	-	-	1	-	1	1	1	1	1	-	
D																						
Decalin (TM for decahydronaphthalene)	Colorless Liquid	1	2	2	X	2	X	X	-	X	1	X	2	1	-	-	-	-	-	1	1	
Decanal [Decyl Aldehyde]	Colorless to yellow Liquid	1	-	-	-	X	-	X	-	X	X	X	-	-	-	-	-	-	-	-	-	
Decanol [Decyl Alcohol]	Colorless, water white Liquid	1	-	-	-	1	-	X	X	X	2	2	-	-	X	-	-	-	-	-	-	
Decyl Aldehyde (n-decanal)	Colorless to yellow Liquid	1	-	-	-	X	-	X	-	X	X	X	-	-	-	-	-	-	-	-	-	
Deicing Fluid (ethylene or propylene glycol)	Orange Liquid	1	1	1	1	1	-	-	1	1	1	2	1	-	1	2	1	1	1	1	1	
Denatured Alcohol	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	
Detergent Sol. (Sodium dodecylbenzenesulfonate)	In Water	1	2	1	1	1	X	X	2	1	-	1	-	-	1	2	1	1	1	1	1	
Developing Solutions (Hypos)	Liquid	1	1	-	-	-	2	2	2	2	-	2	-	-	1	-	1	1	-	-	-	
Dextron	Brown Liquid	1	X	-	X	1	-	-	-	X	-	-	1	1	2	-	-	-	-	-	-	
Dextrin (Starch gum)	Yellow or White Powder	1	1	-	1	1	-	-	1	X	1	-	-	1	1	-	1	1	-	-	1	
Diacetone	Colorless Liquid	1	1	-	2	X	X	X	X	2	X	X	1	1	X	1	1	1	-	1	1	
Diacetone Alcohol	Colorless Liquid	1	1	-	-	X	2	2	-	2	X	2	1	-	X	1	1	1	1	1	1	
Diammonium Phosphate	In Water	1	1	-	1	1	1	1	1	1	-	1	-	-	1	X	2	1	X	-	1	
Diazinon	In Petroleum Solvents	1	-	-	1	-	1	1	-	-	1	-	-	-	2	-	-	-	-	-	2	
Dibenzyl Ether	Colorless Liquid	1	1	-	2	X	X	X	X	2	X	X	2	-	-	1	1	1	1	1	-	
Dibutyl Ether	Colorless Liquid	1	1	-	-	X	X	X	X	2	X	X	1	-	-	1	1	1	1	1	-	
Dibutyl Phthalate	Colorless Oily Liquid	1	1	-	1	X	X	X	X	2	2	X	2	-	-	1	1	1	1	1	2	
Dibutylamine	Colorless Liquid	1	-	-	X	X	X	X	X	X	X	X	X	-	X	-	-	-	-	-	-	
Dibutylsebacate	Clear Colorless Liquid	1	1	-	X	X	X	X	X	2	1	-	2	-	-	-	-	-	-	1	-	
Dichloroacetic Acid	Colorless Liquid	1	-	-	-	X	-	2	-	X	X	X	-	-	-	-	-	-	-	-	-	
Dichloroaniline	In Alcohol or Benzene	1	-	-	X	X	X	-	X	X	2	-	-	-	-	-	-	-	-	-	-	
Dichlorobenzene (ortho)	Colorless Liquid	1	2	-	X	X	X	X	X	1	X	X	1	X	-	1	1	-	1	-	-	
Dichlorobenzene (para)	White Crystals	1	2	-	X	X	X	X	X	1	X	X	1	X	-	1	1	-	1	-	-	
Dichlorobenzyl Chloride	Colorless Liquid	1	2	-	X	X	X	X	X	1	X	X	-	X	-	-	-	-	-	-	-	
Dichlorodifluoromethane (Freon 12)	Gas, Liquid @ 140 PSIG @ 100°F	SPECIAL HOSE REQUIRED														-	-	-	-	-	-	-
Dichloroethane (Ethylene Dichloride)	Colorless Oily Liquid	1	2	2	X	X	X	X	X	2	X	X	X	X	-	-	-	-	-	-	-	
Dichloroethyl Ether	Colorless Liquid	1	-	-	-	X	-	X	-	X	-	X	-	-	-	-	-	-	-	-	-	
Dichloroethylene	Colorless Liquid	1	2	X	X	X	X	X	X	1	X	-	-	-	-	-	-	-	-	-	X	
Dichloroethylene (Acetylene Dichloride)	Colorless Liquid	1	X	X	X	-	X	X	-	X	1	-	X	1	X	-	-	-	-	-	X	
Dichloromethane (Methylene Chloride)	Colorless Liquid	1	1	2	X	X	X	X	X	2	X	X	X	X	1	1	1	-	1	-	-	
Dichloropentane	Light Yellow Liquid	1	-	-	X	X	X	X	X	X	1	X	-	-	-	-	-	-	-	-	-	
Dichloropropane (Propylene Dichloride)	Colorless Liquid	1	-	-	X	X	X	X	X	2	X	-	-	-	-	-	-	-	-	-	-	
Dicyclohexylamine	Colorless Liquid	1	-	-	X	-	X	X	X	X	X	X	-	-	-	-	-	-	-	-	-	
DIDA [Diisodecyl Adipate]	Light Colored Oily Liquid	1	-	-	-	X	-	X	-	1	X	X	-	-	-	-	-	-	-	-	-	
Diesel Fuel	Liquid	1	1	1	X	1	X	X	2	X	-	X	-	1	-	1	1	1	1	1	2	
Diethanolamine (20%)	In Water or Alcohol	1	-	-	2	2	2	2	X	1	-	2	1	-	2	1	1	1	1	X	-	
Diethanolamine	Liquid above 83°F (29°C)	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
Diethyl Ether (Ethyl Ether)	Colorless Liquid	1	2	-	X	X	X	X	X	2	X	X	1	-	2	2	1	1	1	1	1	
Diethyl Ketone	Colorless Liquid	1	-	-	2	X	-	X	X	2	X	X	-	-	X	-	-	-	-	-	-	
Diethyl Oxalate	Colorless Oily Liquid	1	-	-	X	X	-	X	X	X	-	X	-	-	X	-	-	-	-	-	-	
Diethyl Phthalate (Ethyl Phthalate)	Water White Liquid	1	1	-	-	X	X	X	-	2	-	-	2	-	-	-	1	1	-	1	-	

CHEMICAL RESISTANCE TABLE

THE WORLD OF HOSE

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers														Couplings / Adapters					
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
Diethyl Sebacate	-	1	1	-	-	X	X	X	X	2	2	X	2	-	-	-	1	1	-	1	-
Diethyl Sulfate	Colorless Liquid	1	-	-	1	X	1	X	1	2	X	X	-	-	-	-	-	-	-	-	-
Diethyl Sulfide (Ethyl Sulfide)	Colorless Oily Liquid	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Diethylacetaldehyde (Ethylbutyraldehyde)	Colorless Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethylamine	Colorless Liquid	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	1	1
Diethylbenzene	Colorless Liquid	1	1	-	X	-	X	X	-	X	1	-	2	-	-	-	-	-	-	-	-
Diethylene Dioxide (1,4 Dioxane)	Colorless Liquid	1	1	-	2	X	X	X	X	2	X	X	2	1	X	1	1	1	1	1	1
Diethylene Ether (Dioxane)	Colorless Liquid	1	1	-	2	X	X	X	X	2	X	X	2	1	X	1	1	1	1	1	1
Diethylene Glycol (Dihydroxydiethyl Ether)	Colorless Syrupy Liquid	1	1	-	1	1	1	1	1	1	1	-	1	1	1	1	1	1	1	1	1
Diethylene Glycol Methyl Ether (Methyl Cellosolve)	Colorless Liquid	1	1	-	1	-	X	X	-	X	1	X	1	-	-	-	-	-	-	-	-
Diethylene Glycol Monobutyl Ether	Colorless Liquid	1	1	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Diethylene Glycol Monobutyl Ether Acetate	Colorless Liquid	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethylene Glycol Monoethyl Ether	Colorless Liquid	1	1	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Diethylene Glycol Monomethyl Ether	Colorless Liquid	1	1	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Diethylene Glycol Monomethyl Ether Acetate	Colorless Liquid	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethylenetriamine	Yellow Liquid	1	1	1	1	-	X	-	X	1	X	X	-	-	-	-	-	-	-	-	-
Dihydroxyacetone	In Water	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dihydroxydiethyl ether (Diethylene glycol)	Colorless Syrupy Liquid	1	1	1	1	1	1	1	1	1	1	-	1	1	1	1	1	1	1	1	1
Diisobutyl Ketone	Colorless Liquid	1	1	-	1	X	X	X	X	2	X	X	2	1	-	-	1	1	-	1	1
Diisobutyl Phenol (Octyl Phenol)	White Flakes	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Diisobutyl Phthalate	Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diisobutyrene	Colorless Liquids	1	1	-	X	2	X	X	X	X	1	X	1	-	-	-	1	1	-	1	-
Diisodecyl Adipate (DIDA)	Light Colored Oily Liquid	1	-	-	-	X	-	X	-	1	X	X	-	-	-	-	-	-	-	-	-
Diisooctyl Phthalate (DIOP)	Nearly Colorless Liquid	1	-	-	1	X	-	X	-	1	X	X	-	-	-	-	-	-	-	-	-
Diisopropanolamine	Liquid above 108°F (42°C)	1	-	-	-	2	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-
Diisopropyl Ketone	Colorless Liquid	1	1	-	1	X	X	X	X	2	X	X	-	1	-	-	1	1	-	1	-
Diisopropylamine	Colorless Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diisopropylbenzene (meta)	Colorless Liquid	1	2	2	X	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Diisopropylidene Acetone (Phorone)	Yellow Liquid	1	1	-	2	X	X	X	X	2	X	X	-	-	-	1	1	1	-	1	-
Dilauryl Ether	Liquid above 92°F (33°C)	1	1	-	1	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-
Dimethyl Acetamide (DMAC)	Colorless Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethyl Aniline	Yellow/brown Oily Liquid	1	1	-	X	X	X	X	X	2	1	X	2	-	-	-	-	-	-	1	-
Dimethyl Ether	Liquid under Pressure	1	1	1	1	X	X	X	X	2	X	X	-	-	-	1	1	1	1	1	-
Dimethyl Formamide	Water White Liquid	1	1	-	2	-	-	-	-	X	-	-	-	-	-	1	1	1	-	-	1
Dimethyl Phthalate	Colorless Oily Liquid	1	1	-	2	X	X	X	X	2	1	X	1	-	-	-	-	-	-	-	1
Dimethyl Sulfate (Methyl Sulfate)	Colorless Liquid	1	1	-	X	X	X	X	X	2	X	X	-	1	1	-	-	-	-	-	-
Dimethyl Sulfide	Colorless Liquid	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dimethyl Sulfoxide	Colorless Liquid	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dimethyl Terephthalate	Colorless Crystals	-	-	-	-	X	X	-	X	X	1	-	-	-	-	-	-	-	-	-	-
Dimethylamine (DMA)	Liquid @ 70 PSIG @ 120°F (49°C)	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethylaminoethanol (Dimethylethanolamine)	Colorless Liquid	1	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethylaminomethyl Phenol (DMP)	Dark Red Liquid	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dimethylbenzene (DMB)	Colorless Liquid	1	X	X	X	X	X	X	X	1	X	X	X	X	-	-	-	-	-	-	-
Dimethylcarbinol (isopropyl alcohol)	Colorless Liquid	1	1	1	1	1	2	2	2	1	1	2	1	1	2	1	1	1	1	2	1
Dimethylcyclohexylamine	Water White Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethylformamide (DMF)	Water white Liquid	1	2	-	-	-	-	-	-	X	-	-	-	-	-	1	1	1	-	-	1
Dimethylketone (Acetone)	Colorless Liquid	1	1	X	2	X	X	X	X	2	X	X	1	1	X	1	1	1	1	1	2
Dimethylphenol (Xylenol)	White solid, liquid @ 68°F (20°C)	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dinitrobenzene (Soluble in Chloroform)	In Chloroform	1	2	-	X	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dinitrogen Tetroxide (Nitrogen Dioxide)	Liquid @ 50 PSIG @ 120°F (49°C)	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dinitrotoluene, Solid	In Alcohol or Ether	1	1	1	1	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-
Diocetyl Adipate di (2-ethylhexyl) adipate	Light Colored Oily Liquid	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers													Couplings / Adapters						
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
		NOTE: Ratings are for the affect on the polymer only!																			
Diocetyl Phosphite, di-[2-ethylhexyl] phosphite	Colorless Liquid	1	1	-	X	-	-	-	-	-	1	-	-	-	X	-	-	-	-	-	-
Diocetyl Phthalate, di-[2-ethylhexyl] phthalate	Light Colored Liquid	1	1	-	X	X	X	X	X	X	1	X	2	-	-	1	1	1	1	1	X
Diocetyl Sebacate, di-[2-ethylhexyl] sebacate	Pale Straw Colored Liquid	1	1	-	-	X	X	X	X	2	1	X	X	-	-	-	-	-	-	-	-
Diocetylamine di-[2-ethylhexyl]amine	Water White Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DIOP (Diisooctyl Phthalate)	Nearly Colorless Liquid	1	-	-	1	X	-	X	-	1	X	X	-	-	-	-	-	-	-	-	-
Dioxane (Diethylene Dioxide)	Colorless Liquid	1	1	-	2	X	X	X	X	2	X	X	2	1	X	1	1	1	1	1	1
Dioxane (Diethylene Ether)	Colorless Liquid	1	1	-	2	X	X	X	X	2	X	X	2	1	X	1	1	1	1	1	1
Dioxolane (Ethylene Glycol Formal)	Water White Liquid	1	-	-	-	-	-	-	-	-	X	-	-	-	-	1	1	1	1	1	-
Dipentene (Cinene, Limonene)	Colorless Liquid	1	2	-	X	X	X	X	X	-	1	-	-	1	-	1	1	1	1	1	-
Diphenyl Phthalate	Yellow White Powder	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dipropyl Ketone	Colorless Liquid	1	1	-	1	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-
Dipropylamine	Water White Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dipropylene Glycol	Colorless Liquid	1	1	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dipropylene Glycol Monomethyl Ether (DPM)	Colorless Liquid	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dirco Oils	Liquid	1	1	-	X	1	-	-	-	X	-	-	-	1	-	1	1	1	1	1	-
Disodium Phosphate (DSP soluble in H2O)	Colorless or White Powder	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disodium Phosphate Solution	In Water	1	1	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Distillate Fuel Oil	Clear to Brown Liquid	1	2	-	X	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Divinylbenzene (20-25% or 50-60% Grades)	Water White to Straw Liquid	1	2	-	X	X	X	X	X	-	X	1	-	-	-	-	-	-	-	-	-
DMA (Dimethylamine)	Gas	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DMAC (Dimethyl Acetamide)	Colorless Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DMB (Dimethylbenzene)	Colorless Liquid	1	X	X	X	X	X	X	X	X	1	X	X	X	X	-	-	-	-	-	-
DMF (Dimethylformamide)	Water white Liquid	1	2	-	-	-	-	-	-	-	X	-	-	-	-	1	1	1	-	-	1
DMP (Dimethylaminomethyl phenol)	Dark Red Liquid	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dodecylbenzene (Detergent Alkylate)	Liquid	1	2	-	X	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dodecylphenol	Straw Colored Liquid	1	1	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Dolomite	Gray, Pink or White Powder	-	-	-	2	1	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-
Dowtherm A (Biphenyl and Biphenyl Ether Mix)	Liquid	1	1	-	1	X	X	X	X	X	1	X	2	-	X	1	1	1	1	1	-
Dowtherm SR-1 (Ethylene Glycol)	Liquid	1	1	1	1	1	-	-	-	-	1	1	-	1	-	2	1	1	1	1	1
DPM (Dipropylene Glycol Monomethyl Ether)	Colorless Liquid	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duro Oils	Liquid	1	1	-	X	1	-	-	-	-	X	-	-	-	1	2	1	1	1	1	-
E																					
EDB (Ethylene Dibromide)	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-
EDTA (Ethylenediaminetetraacetic Acid)	Colorless Crystals	1	1	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Emulsion (Oil in Water)	Water is Continuous Phase	1	1	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Enamels	Liquid	1	1	-	X	-	-	-	-	-	1	-	-	1	2	-	-	-	-	1	-
Epichlorohydrin (Chloropropylene Oxide)	Volatile Liquid	1	2	-	X	-	-	-	-	-	X	-	-	-	1	-	-	-	-	-	1
Epoxy Resin	Solid Pellet	-	-	-	1	-	-	-	-	1	2	X	-	-	-	-	-	-	-	-	-
Essential Oils	Liquid	1	2	-	X	1	X	X	2	-	1	-	-	-	2	1	1	1	1	1	-
Ethanol (Ethyl Alcohol)	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	2	1
Ethanolamine (Aminoethanol)	Colorless Viscous Liquid	1	2	1	2	2	2	2	2	2	X	X	1	1	2	1	1	1	1	1	-
Ethers	Liquids	1	1	X	1	2	X	X	X	2	X	2	1	-	2	1	1	1	1	1	2
Ethyl Acetate (Acetic Ether)	Colorless Liquid	1	1	X	2	X	X	X	X	2	X	X	2	1	X	1	1	1	1	1	2
Ethyl Acetoacetate	Colorless Liquid	1	1	-	2	X	X	X	X	2	X	X	1	-	-	1	1	1	1	1	X
Ethyl Acrylate	Colorless Liquid	1	2	-	2	X	X	X	X	X	X	X	2	-	X	1	1	1	-	-	X
Ethyl Acrylate, Inhibited	Colorless Liquid	1	2	-	2	X	X	X	X	X	X	X	2	-	X	1	1	1	-	-	X
Ethyl Alcohol (Ethanol)	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	2	1
Ethyl Aluminum Dichloride 90°F (32°C)	Clear Yellow Liquid	1	-	-	-	X	-	X	-	X	2	X	-	-	-	-	-	-	-	-	-
Ethyl Bromide	Colorless Liquid	1	2	-	X	X	X	X	X	X	1	X	2	1	X	-	1	1	-	1	-
Ethyl Butyl Ether (Butyl Ethyl Ether)	Liquid	1	-	-	-	2	-	X	-	X	-	2	-	-	-	-	-	-	-	-	-
Ethyl Butyrate	Colorless Liquid	1	1	-	-	X	X	X	X	2	-	-	-	-	-	-	1	1	1	-	-
Ethyl Chloride	Compressed Liquid	1	2	2	X	X	X	X	X	X	1	X	-	-	X	2	1	1	1	2	X

CHEMICAL RESISTANCE TABLE

THE WORLD OF HOSE

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers													Couplings / Adapters						
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
Ethyl Chloroformate (Ethyl Chlorocarbonate)	Water White Liquid	1	-	-	X	X	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Ethyl Ether (Diethyl Ether)	Colorless Liquid	1	2	X	X	X	X	X	X	X	2	X	1	2	X	2	1	1	1	1	1
Ethyl Ether Acetate (Cellosolve Acetate)	Colorless Liquid	1	1	-	2	X	-	-	-	-	X	-	1	-	1	1	1	1	-	-	1
Ethyl Formate	Water White Liquid	1	-	-	2	X	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Ethyl Iodide	Colorless Liquid	1	-	-	X	X	-	X	X	X	2	X	-	-	-	-	-	-	-	-	-
Ethyl Isobutyrate	Colorless Liquid	1	-	-	X	X	-	X	X	X	-	-	-	-	-	-	-	-	-	-	-
Ethyl Mercaptan (Ethanethiol)	Colorless Pungent Liquid	1	1	-	X	X	X	X	X	X	1	X	-	-	X	2	-	-	-	-	-
Ethyl Methyl Ketone (MEK)	Colorless Liquid	1	1	1	2	X	-	-	X	-	X	X	2	1	X	-	-	-	-	-	-
Ethyl Oleate	Light Yellowish Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethyl Oxalate	Colorless Liquid	1	1	-	2	X	2	2	X	2	1	-	1	-	-	-	-	-	-	-	-
Ethyl Pentachlorobenzene	-	1	1	-	X	X	X	X	X	X	1	X	-	-	-	2	1	1	-	1	-
Ethyl Phthalate (Diethyl phthalate)	Water White Liquid	1	1	-	-	X	X	X	-	2	-	-	2	-	-	-	1	1	-	1	-
Ethyl Propionate	Water White Liquid	1	-	-	X	X	-	X	X	X	-	-	-	-	-	-	-	-	-	-	-
Ethyl Propyl Ketone (3-Hexanone)	Colorless Liquid	1	-	-	-	X	-	X	-	2	X	X	-	-	-	-	-	-	-	-	-
Ethyl Silicate	Colorless Liquid	1	1	-	2	1	2	2	1	-	1	-	1	-	-	1	1	1	1	1	1
Ethyl Sulfide (Diethyl Sulfide)	Colorless Oily Liquid	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Ethylamine	Colorless Liquid or Gas	1	2	-	1	X	X	X	X	2	X	X	1	-	-	-	1	1	-	1	-
Ethylbenzene	Colorless Liquid	1	2	-	X	X	X	X	X	X	1	X	2	-	-	1	1	1	-	1	-
Ethylbutanol (2-Ethylbutyl Alcohol)	Colorless Liquid	1	1	1	1	1	-	-	1	1	1	2	1	1	1	-	-	-	-	-	-
Ethylbutyl Alcohol (Ethylbutanol)	Colorless Liquid	1	1	1	1	1	-	-	1	1	1	2	1	1	1	-	-	-	-	-	-
Ethylbutyl Amine	Water White Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbutyl Ketone	Clear Liquid	1	1	-	1	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-
Ethylbutylaldehyde (Diethylacetaldehyde)	Colorless Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylcellulose	Granular Solid	1	1	-	-	-	-	1	-	-	-	1	-	-	1	1	1	-	1	-	-
Ethylene Chlorohydrin	Colorless Liquid	1	1	-	X	X	-	-	X	2	1	-	-	X	X	-	-	-	-	-	-
Ethylene Cyanohydrin	Straw Colored Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylene Dibromide (EDB)	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-
Ethylene Dichloride (Chloroethane)	Colorless Liquid	1	2	2	X	X	X	X	X	X	2	X	X	X	X	-	-	-	-	-	-
Ethylene Glycol	Colorless Liquid	1	1	1	1	1	-	-	1	1	1	2	1	-	1	2	1	1	1	1	1
Ethylene Glycol Formal (Dioxolane)	Water White Liquid	1	-	-	-	-	-	-	-	-	X	-	-	-	-	1	1	1	1	1	-
Ethylene Glycol Monoethylether	Colorless Liquid	1	1	-	1	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylene Glycol Monoethylether Acetate	Colorless Liquid	1	1	-	1	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylene Glycol Monomethyl Ether	Colorless Liquid	1	1	-	2	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylene Glycol N-Butyl Ether	Colorless Liquid	1	1	-	1	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylenediamine	Colorless Liquid	1	2	-	2	1	-	-	-	2	X	-	-	-	-	1	1	-	-	-	1
Ethylenediaminetetraacetic acid (EDTA)	Colorless Crystals	1	1	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Ethylhexaldehyde	Colorless Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylhexanediol	Colorless Liquid	1	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylhexanol (2-ethylhexyl alcohol)	Colorless Liquid	1	1	1	1	1	1	1	1	-	1	1	-	1	1	1	-	-	-	-	-
Ethylhexoic Acid	Liquid	1	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylhexyl Acetate	Water White Liquid	1	1	-	1	X	-	-	X	-	X	X	-	1	-	-	-	-	-	-	-
Ethylhexyl Acrylate	Liquid	1	2	-	-	X	-	-	-	X	-	-	-	X	-	-	-	-	-	-	-
Ethylhexyl Alcohol (Ethylhexanol)	Colorless Liquid	1	1	1	1	1	1	1	-	1	1	-	1	1	1	-	-	-	-	-	-
F																					
Fatty Acid	Solid, Semisolid or Liquid	1	2	2	2	2	X	X	2	2	2	X	2	-	2	2	1	1	1	2	1
Fatty Alcohol, Blend	C8-11 Liquids, >C11 Solids	1	1	1	1	1	1	1	1	1	1	-	1	1	1	-	-	-	-	-	-
Fatty Petroleum Alcohol	C11 or Less are Liquids	1	1	1	1	1	-	-	-	1	1	-	1	1	-	-	-	-	-	-	-
Ferric Bromide	Red Crystals	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Ferric Chloride	Black-Brown Solid	1	1	-	-	2	-	1	2	1	1	2	1	1	1	X	X	X	X	X	1
Ferric Chloride solution	Liquid	1	1	-	-	2	-	1	2	1	1	2	1	1	1	X	X	X	X	X	1
Ferric Nitrate	Violet Crystals	1	1	-	-	-	2	1	2	2	-	2	1	-	-	X	1	1	-	-	1
Ferric Nitrate Solution	Liquid	1	-	-	1	1	-	1	1	1	1	-	1	-	X	1	1	-	-	1	-

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers														Couplings / Adapters					
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
		1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data NOTE: Ratings are for the affect on the polymer only!																			
Ferric Sulfate	Yellow Crystals or Gray Powder	-	-	-	-	-	1	-	-	-	-	-	-	-	X	1	1	X	X	1	
Ferric Sulfate Solution	Liquid	1	1	1	2	2	2	-	2	2	1	2	1	-	1	X	1	1	X	X	1
Ferrous Acetate Solution	Liquid in H2O or Alcohol	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Ferrous Chloride	Greenish-White Crystals	-	-	-	-	-	1	-	-	-	-	-	-	-	X	1	2	-	2	1	
Ferrous Chloride, Solution	Liquid	1	1	-	-	-	-	-	1	1	2	1	-	1	X	1	2	-	2	1	
Ferrous Nitrate	-	1	1	-	2	2	-	-	2	2	-	2	-	-	2	-	1	1	-	-	1
Ferrous Sulfate Solution	Liquid	1	1	1	2	2	2	-	2	2	1	2	1	-	1	X	1	1	X	X	1
Fertilizer (Liquid Manure)	Liquid	1	1	1	1	1	1	1	1	1	1	1	-	1	2	1	1	1	1	1	1
Finishing Oil	Liquid	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fire-Resistance Hydra-Fluid (Texaco)	Liquid	1	1	-	X	1	-	-	-	X	-	-	-	-	-	1	1	1	1	1	-
Firtec 290, MF	Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fish Oil	Liquid	1	-	1	X	1	-	-	2	-	1	-	-	-	-	-	-	-	-	-	-
Fixing Solution (Photo)	Liquid	1	1	-	-	-	2	2	2	2	-	2	-	1	1	-	1	1	-	-	1
Flint	Gray, Brownish, Black	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Floor Wax (Temperature Dependent)	Varies	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoboric Acid (48% Purity)	Colorless Liquid	1	1	1	2	-	2	2	2	-	2	1	-	X	-	1	1	-	-	1	
Fluoboric Acid (up to 48%)	Colorless Liquid	1	1	-	1	-	2	2	2	-	1	2	1	-	X	-	1	1	-	-	1
Fluorine	Pale Yellow Gas	X	-	X	X	-	-	-	-	-	1	-	-	X	1	-	-	-	-	-	-
Fluorine (Liquid)	Yellow Liquid	NO HOSE AVAILABLE														-	-	-	-	-	-
Fluosilicic Acid (50%)	Colorless Liquid	1	1	1	2	X	-	-	2	X	-	2	1	X	X	-	-	-	1	-	1
Formaldehyde	Gas	-	1	-	1	-	-	-	-	-	1	-	-	1	-	X	2	1	2	1	-
Formaldehyde Solution (up to 50%)	Liquid	1	2	1	1	2	X	X	2	2	1	2	1	1	1	X	2	1	2	1	-
Formalin (37-50% HCHO with 15% MeOH)	Liquid	1	1	-	1	2	X	X	2	2	1	2	1	1	1	-	-	-	-	-	-
Formamide	Colorless Oily Liquid	1	1	-	-	-	X	X	-	-	-	-	-	X	-	-	-	-	-	-	-
Formic Acid	Colorless Liquid (bp 100°C)	1	1	1	2	-	X	X	1	2	X	2	1	X	X	X	2	1	-	2	1
FR Fluid D	Liquid	1	1	-	X	1	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-
FR Hydraulic Fluid	Brown Liquid	1	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Freon 12 (Dichlorodifluoromethane)	Gas or Liquid	SPECIAL HOSE REQUIRED														-	-	-	-	-	-
Freon 13	Gas or Liquid	SPECIAL HOSE REQUIRED														-	-	-	-	-	-
Freon 134a (HFC 134a)	Gas or Liquid	SPECIAL HOSE REQUIRED														-	-	-	-	-	-
Freon 22 (Chlorodifluoromethane)	Gas or Liquid	SPECIAL HOSE REQUIRED														-	-	-	-	-	-
Freon 23	Clear Liquid	SPECIAL HOSE REQUIRED														-	-	-	-	-	-
Fruit Juices	Liquid	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Fuel Oil (ASTM 1-6)	Water White to Brown Liquids	1	2	1	X	1	X	X	2	X	1	X	1	1	X	2	2	2	1	1	-
Fumaric Acid	Colorless Crystals	1	1	1	2	-	2	2	-	-	1	-	-	-	X	-	1	1	-	-	-
Fumaric Acid Solution (Allomalaic Acid)	Liquid	1	1	-	2	1	2	2	-	-	1	-	-	-	X	-	1	1	-	-	-
Furan (Furfuran)	Colorless to Brown Liquid	1	1	1	X	X	X	X	X	X	-	-	1	-	X	1	1	1	1	1	-
Furfural (Ant Oil)	Colorless to Reddish Brown Liquid	1	1	-	X	X	X	X	2	X	2	2	1	-	X	2	1	1	1	1	2
Furfural Alcohol	Colorless to Brown Liquid	1	1	2	X	X	X	X	2	X	1	2	1	1	X	2	1	1	1	1	2
Furfuran (Furan)	Colorless to Brown Liquid	1	1	1	X	X	X	X	X	X	-	-	1	-	X	1	1	1	1	1	-
Furfuryl Alcohol	Colorless to Reddish Brown Liquid	1	1	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-
Fusel Oil (Amyl Alcohol, Grain Oil)	Colorless Liquid	1	1	1	2	2	2	2	2	2	1	2	1	1	1	1	1	1	1	1	-
Fyrguard 150, 200	-	1	1	-	1	1	-	-	-	1	-	-	-	-	-	1	1	1	1	1	-
Fyrquel 15R&O, 220R&O, 550R&O	-	1	1	-	1	X	-	-	-	1	-	-	-	-	-	1	-	-	1	-	-
Fyrquel 90, 150, 220, 300, 550, 1000	-	1	1	-	1	X	-	-	-	1	-	-	-	-	-	1	-	-	1	-	-
G																					
Gallic Acid [3,4,5 Trihydroxybenzoic Acid]	In Alcohol or Glycerol	1	1	1	1	X	2	2	X	2	1	-	1	X	X	X	1	1	-	-	1
Gallic Acid Solution	In Alcohol Solution	1	1	-	-	X	2	2	X	2	1	-	1	X	X	X	1	1	-	-	1
Gasohol (Gasoline blended with Ethanol)¹	Colorless Liquid	1	2	1	X	2	X	X	2	X	1	X	-	1	X	2	1	1	1	1	X
Gasoline (Oxygenated - Blended With MTBE)¹	Colorless Liquid	1	2	1	X	2	X	X	2	X	1	X	-	1	X	2	1	1	1	1	X
Gasoline (Unleaded Up to 50% Aromatics)¹	Colorless Liquid	1	2	1	X	2	X	X	2	X	1	X	1	1	X	2	1	1	1	1	-
Gasoline (White)¹	Colorless Liquid	1	2	-	X	2	X	X	2	X	1	X	-	1	X	2	1	1	1	1	-

CHEMICAL RESISTANCE TABLE

THE WORLD OF HOSE

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers													Couplings / Adapters						
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
Gelatin	Flakes or Powder	-	-	-	-	-	-	1	-	-	-	-	-	1	1	-	-	-	-	-	-
Glacial Acetic Acid	Clear Colorless Liquid	1	1	1	2	-	-	-	X	X	X	-	X	X	X	-	-	-	-	-	-
Glacial Methacrylic Acid (GMAA)	White Crystals	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glauber's Salt (Sodium Sulfate Decahydrate)	Crystals or Powder	1	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Gluconic Acid (Commercial 50% Aqueous)	Aqueous Solution	1	-	-	-	X	-	X	-	X	-	2	-	-	-	-	-	-	-	-	-
Glucose	Crystals to White Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	1	1	1	1	1	1	-
Glucose Solution	Liquid	1	1	-	1	1	1	1	1	1	1	1	-	-	1	1	1	1	1	1	-
Glue	Varies	1	1	-	X	2	X	X	2	X	1	1	-	2	1	2	1	1	1	X	-
Glycerine (Glycerol)	Clear Viscous Liquid	1	1	-	1	1	1	1	1	1	1	1	1	1	-	1	2	1	1	1	-
Glycerol (Glycerine)	Clear Viscous Liquid	1	1	-	1	1	1	1	1	1	1	1	1	-	1	2	1	1	1	1	-
Glycerol Monolaurate	Liquid above 80°F (27°C)	1	1	1	1	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-
Glycol FR Fluids	Liquid	1	-	-	1	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Glycol Slurry	Watery suspension	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glycols (ie Ethylene Glycol)	Clear Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	-	1	1	1	1	1	-
GMAA (Glacial Methacrylic Acid)	White Crystals	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Graphite	Powdered, Flake, Crystals	1	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Grease	Semi-Solid	1	1	2	X	1	X	X	2	X	1	2	-	-	1	1	1	1	1	1	-
Grease, Silicone Base	-	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1	1	1	1	1	-
Green Liquor (Effluent Alkaline Pulping)	Liquid	1	1	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Green Sulfate Liquor	Liquid	1	1	1	1	2	1	1	1	1	-	1	2	-	-	1	1	1	-	-	-
H																					
Halowax (Chlorinated Hydrocarbons)	Oils to Waxy Solid	1	1	1	X	X	X	X	X	X	1	X	-	-	-	-	-	-	-	-	-
HEA (2-Hydroxyethyl Acrylate)	Liquid	1	1	1	X	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
HEA Acid (2-Hydroxyethyl Acrylate)	Liquid	1	1	1	X	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
Hematite (Iron Ore)	Black to Brick Red	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
HEP (2-Hydroxypropyl Acrylate)	Liquid	1	1	1	X	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
Heptachlor (In Xylene)	Liquid	1	2	-	X	2	X	X	X	X	1	-	-	1	X	-	-	-	-	-	-
Heptanal (Heptaldehyde)	Colorless Oily Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptane	Colorless Liquid	1	2	1	X	1	X	X	2	X	1	X	1	1	2	1	1	1	1	1	-
Heptanedicarboxylic Acid (Azelaic Acid)	Yellowish to White Powder	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Heptanoic Acid	Clear Oily Liquid	1	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Heptanol	Colorless Liquid	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-
Hexachlorocyclohexane	White to Yellowish Flakes	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	Yellow Liquid	1	-	-	X	-	X	X	-	X	1	-	-	-	-	-	-	-	-	-	-
Hexadecanoic Acid (Palmitic Acid)	White Crystals	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexahydrophthalic Anhydride	Clear Colorless Viscous Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexaldehyde	Colorless Liquid	1	1	1	1	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	-
Hexamethylenediamine, Solution	Colorless Flat Solid Leaflets	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexamethylenimine	Clear Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexane	Colorless Liquid	1	X	1	X	1	X	X	-	X	1	-	1	1	X	1	1	1	-	1	-
Hexanol (Hexyl Alcohol)	Colorless Liquid	1	1	-	X	1	-	-	2	-	1	X	1	-	-	1	1	1	1	1	2
Hexanone (Ethyl Propyl Ketone)	Colorless Liquid	1	-	-	X	-	X	-	X	-	2	X	X	-	-	-	-	-	-	-	-
Hexene	Colorless Liquid	1	-	-	X	2	X	X	-	X	1	-	1	-	-	1	1	1	-	1	-
Hexyl "Cellosolve" (EG monoethyl ether)	Water White Liquid	1	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Hexyl Alcohol (Hexanol)	Colorless Liquid	1	1	-	X	1	-	-	2	-	1	X	1	-	-	1	1	1	1	1	2
Hexyl Methacrylate	Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexylamine	Water White Liquid	1	-	-	-	X	-	X	-	2	X	X	-	-	-	-	-	-	-	-	-
Hexylene (1-Hexene)	Colorless Liquid	1	-	-	X	2	X	X	-	X	1	-	1	-	-	1	1	1	-	1	-
Hexylene Glycol	Colorless Liquid	1	1	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Honey	Yellow Liquid	1	-	-	1	1	-	1	1	-	1	-	-	-	1	-	-	-	-	-	-
Houghto-Safe 1055, 1110, 1115, 1120, 1130	Liquid	1	1	-	1	X	-	-	-	1	-	-	-	-	-	1	1	1	1	1	-
Houghto-Safe 271, 416, 520 & 616, 620	Liquid	1	1	-	1	1	-	-	-	1	-	-	-	-	-	1	1	1	1	1	-

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers													Couplings / Adapters						
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
Houghto-Safe 5046	Liquid	1	1	-	X	1	-	-	-	X	-	-	-	-	-	1	1	1	1	1	-
Houghto-Safe 625, 640 & 525 Under 100°F [38°C]	Liquid	1	1	-	1	1	-	-	-	1	-	-	-	-	-	1	1	1	1	1	-
HPA Acid [2-Hydroxypropyl Acrylate]	Liquid	1	1	1	X	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
HPO [Sodium Thiosulfate]	White Powder	1	1	-	-	1	1	1	1	1	-	1	1	1	1	X	1	1	2	X	-
Hy-Chock Oil	Liquid	1	1	-	-	1	-	-	-	-	1	-	-	1	-	1	1	1	-	-	-
Hydrocyanic Acid (up to 98%)	Water White Liquid	1	1	-	-	-	-	-	-	-	1	-	-	-	-	X	1	1	1	X	-
Hydrafluid 760 [Texaco and Houghton]	Liquid	1	1	-	X	1	-	-	-	X	1	-	-	1	-	1	1	1	1	1	-
Hydrafluid AZR&O, A, B, AA, C	Liquid	1	1	-	X	1	-	-	-	X	1	-	-	1	-	1	1	1	1	1	-
Hydrasol A [Textile Dyeing]	-	1	1	-	X	1	-	-	-	X	1	-	-	1	-	1	1	1	1	1	-
Hydraulic Fluid (Phosphate Ester Base)	Liquid	1	1	-	1	X	-	-	X	1	1	-	-	1	1	1	1	1	-	-	-
Hydraulic Fluid (Polyalphaolefin)	Liquid	1	-	-	-	-	-	-	-	-	1	-	-	-	-	1	1	1	1	1	-
Hydraulic Fluid [Std. Petroleum Oils]	Liquid	1	1	-	X	1	X	X	2	X	1	2	1	1	1	1	1	1	1	1	-
Hydraulic Fluid (Water Glycol Base)	Liquid	1	1	-	-	1	2	2	1	1	1	-	-	1	1	1	1	1	1	1	-
Hydraulic Fluid HF-18, HF-20	Liquid	1	1	-	1	1	-	-	-	1	1	-	-	1	2	1	1	1	1	1	-
Hydraulic Fluid HF-31	Liquid	1	1	-	X	-	-	-	-	X	-	-	-	1	-	1	1	1	1	1	-
Hydrazine	Colorless Fuming Liquid	1	1	-	2	X	X	X	X	2	X	X	-	-	X	-	-	-	-	-	-
Hydrazine Hydrate	Colorless Fuming Liquid	1	1	-	2	X	X	X	X	2	X	X	-	-	X	-	-	-	-	-	-
Hydrazine Solution	Liquid	1	1	-	2	X	X	X	X	2	X	X	-	-	X	-	-	-	-	-	-
Hydro-Drive Oil [Houghton]	Liquid	1	-	-	X	1	-	-	-	X	-	-	-	-	2	-	-	-	-	-	-
Hydrobromic Acid (62% and less)	Colorless to Yellow Liquid	1	1	1	X	X	2	2	X	2	1	2	1	X	X	-	-	-	X	-	-
Hydrobromic Acid (to 48%)	Colorless to Yellow Liquid	1	1	1	1	X	2	2	X	2	1	2	1	X	X	-	-	-	X	-	-
Hydrochloric Acid (15%)	Colorless to Yellow Liquid	1	1	1	2	X	2	2	X	2	1	2	1	X	X	X	X	X	X	X	-
Hydrochloric Acid (37%)	Colorless to Yellow Liquid	1	1	1	X	X	2	2	X	2	1	2	1	X	X	X	X	X	X	X	-
Hydrochloric Acid, anhydrous	Colorless Fuming Gas	1	-	-	-	-	-	-	-	-	1	-	-	-	-	X	X	X	X	X	-
Hydrocyanic Acid (10% Solution with water)	Water White Liquid	1	1	1	-	X	2	2	X	-	1	2	-	-	X	X	1	1	1	X	-
Hydrocyanic Acid (98% or less)	Water White Liquid below 77°F/25°C	1	-	-	-	-	-	-	-	-	1	-	-	-	X	-	-	-	-	-	-
Hydrocyanic Acid (up to 20%)	Water White Liquid	1	1	-	1	2	2	2	2	-	1	1	-	-	2	-	-	-	-	-	-
Hydrofluoric Acid (38% or less)	Colorless Liquid	1	1	1	2	X	X	X	2	2	1	1	1	X	X	X	X	X	X	X	-
Hydrofluoric Acid (47% or less)	Colorless Liquid	1	1	1	2	X	X	X	2	2	1	2	1	X	X	X	X	X	X	X	-
Hydrofluoric Acid (53 % or less)	Colorless Liquid	1	1	X	-	X	X	X	2	X	1	2	1	X	X	X	X	X	X	X	-
Hydrofluoric Acid (70%)	Colorless Liquid	1	1	X	X	X	X	X	X	-	1	2	-	X	X	X	X	X	X	X	-
Hydrofluoric Acid [Concentrated]	Colorless Liquid	1	1	X	X	X	X	X	X	X	2	2	1	X	X	X	X	X	X	X	-
Hydrofluosilicic Acid	In Water	1	1	1	2	X	X	X	X	X	1	1	X	X	X	X	X	X	-	1	-
Hydrogen [Gas]	Gas	CONTACT DENVER PRODUCT APPLICATION													-	-	-	-	-	-	
Hydrogen Bromide Liquified [Anhydrous]	Liquid	1	-	-	1	X	X	X	-	X	1	-	-	-	-	-	-	-	-	-	-
Hydrogen Bromide Solution [HydroBromic Acid]	Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydrogen Bromide, Anhydride	Colorless Gas	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hydrogen Chloride	Colorless Fuming Gas	1	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
Hydrogen Dioxide (Hydrogen Peroxide)	Liquid	1	-	-	2	X	-	-	2	-	1	1	-	-	-	-	-	-	-	-	-
Hydrogen Fluoride	Colorless Gas or Liquid	1	-	-	1	X	X	X	-	2	X	-	-	-	-	1	1	1	-	-	-
Hydrogen Peroxide (35% or less)	Liquid	1	1	1	1	2	X	X	1	X	1	1	1	1	1	X	2	1	1	X	-
Hydrogen Peroxide (50% or less)	Liquid	1	2	1	1	2	X	X	1	X	1	1	1	2	2	X	2	1	1	X	-
Hydrogen Peroxide (70% or less)	Liquid	1	2	1	2	X	X	X	2	-	1	1	1	X	2	X	2	1	1	X	-
Hydrogen Peroxide (90% or less)	Liquid	1	-	1	2	X	X	X	2	-	1	1	-	X	X	X	2	1	1	X	-
Hydrogen Sulfide	Colorless Gas	NO HOSE AVAILABLE													-	-	-	-	-	-	
Hydrogen Sulfide, Liquified	Liquid @ 410 PSI, 120°F [49°C]	1	-	-	1	X	X	-	2	X	X	-	-	-	-	-	-	-	-	-	-
Hydrolube [Water Glycol]	Liquid	1	-	1	1	-	-	-	2	2	1	-	-	-	1	-	-	-	-	-	-
Hydrolubric Oil [Houghton]	Liquid	1	1	-	X	2	-	-	-	X	-	-	-	1	2	-	-	-	-	-	-
Hydroquinone	White Crystals	1	1	-	X	-	X	X	X	X	2	X	-	-	-	-	-	1	1	-	-
Hydroquinone Solution	Liquid	1	-	-	-	X	X	-	X	X	1	-	-	-	2	-	1	1	-	-	-
Hydroxyacetic Acid	Colorless Crystals	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Hydroxyacetic Acid Solution	Liquid	1	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

CHEMICAL RESISTANCE TABLE

THE WORLD OF HOSE

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers															Couplings / Adapters				
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
		NOTE: Ratings are for the affect on the polymer only! 1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data																			
Hydroxyethyl Acrylate (HEA)	Liquid	1	1	1	X	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-
Hydroxyethyl Acrylate Acid (HEA Acid)	Liquid	1	1	1	X	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
Hydroxyethyl Methacrylate	Clear Liquid	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Hydroxyethyl Methacrylate Solution in Xylene	Clear Liquid	1	2	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Hydroxypropyl Acrylate Acid (HPA Acid)	Liquid	1	1	1	X	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
Hylene (Toluene Diisocyanate)	Yellow Liquid	1	-	-	2	X	X	X	X	2	X	X	-	-	-	-	-	-	-	-	-
Hypochlorous Acid (only in dilute solutions)	Greenish-Yellow Aqueous Sol.	1	1	1	2	X	X	X	X	X	1	2	-	-	-	-	-	-	-	-	-
I																					
Ink (Printers)	Liquid	1	1	-	X	2	X	X	-	X	X	-	-	1	-	2	2	1	-	2	-
Ink Oil	Liquid	1	2	-	-	2	-	-	-	-	-	-	-	-	-	1	1	1	-	1	-
Insulating Oil (Transformer)	Liquid	1	1	-	X	1	X	X	2	X	1	X	-	-	-	1	1	1	-	1	-
Iodine	Grayish Black Granules	1	-	-	-	-	-	1	X	-	-	-	-	-	X	X	X	X	-	-	-
Iodine Solution	Liquid	1	1	1	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Iodine, In Alcohol	Liquid	1	1	1	1	-	X	X	2	-	1	-	1	-	1	-	-	-	-	-	-
Iron Acetate Liquor (Black Liquor)	Black Liquid	1	1	1	2	2	X	X	2	2	1	2	2	-	1	1	1	1	-	-	1
Iron Hydroxide	Brown precipitate	1	-	-	1	1	-	X	1	1	1	1	-	-	-	-	-	-	-	-	-
Iron Ore (Hematite)	Black to Brick Red	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron Oxide (Black, Brown, Red or Yellow)	Solid	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron Oxide Slurry	Slurry	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron Salts	-	1	-	-	1	1	-	1	1	1	1	1	-	1	1	-	-	-	-	-	-
Iron Sulfate Solution (Ferric Sulfate)	Liquid	1	1	1	2	2	2	-	2	2	1	2	1	-	1	X	1	1	X	X	1
Iron Sulfide Solution (Ferrous Sulfide)	Liquid	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Isoamyl Acetate	Colorless Liquid	1	-	-	2	X	-	X	X	X	X	X	-	-	-	-	-	-	-	-	-
Isoamyl Alcohol (Isobutyl Carbinol)	Colorless Liquid	1	-	-	2	2	-	2	2	2	2	2	-	-	-	-	-	-	-	-	-
Isoamyl Bromide	-	1	-	-	X	X	-	X	X	X	2	X	-	-	-	-	-	-	-	-	-
Isoamyl Butyrate	Water White Liquid	1	-	-	-	X	-	X	-	X	X	X	-	-	-	-	-	-	-	-	-
Isoamyl Chloride	Colorless to Yellow Liquid	1	2	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Isoamyl Ether	Colorless Liquid	1	-	-	-	X	-	X	-	X	X	X	-	-	-	-	-	-	-	-	-
Isoamyl Phthalate	Colorless Liquid	1	-	-	-	X	-	X	-	2	X	X	-	-	-	-	-	-	-	-	-
Isobutane	Colorless Gas	USE LPG HOSE ONLY																			
Isobutane Liquid	Liquid @ 98 PSIG, 120°F (49°C)	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Isobutanol (Isobutyl Alcohol)	Colorless Liquid	1	1	1	1	2	2	2	2	2	1	1	1	1	2	1	1	1	1	2	-
Isobutene (Isobutylene)	Gas	1	-	-	X	1	X	X	-	2	X	-	-	-	-	-	-	-	-	-	-
Isobutyl Acetate	Colorless Liquid	1	-	-	X	X	-	X	X	X	X	X	-	-	-	-	-	-	-	-	-
Isobutyl Alcohol (Isobutanol)	Colorless Liquid	1	1	1	1	2	2	2	2	2	1	1	1	1	2	1	1	1	1	2	-
Isobutyl Aldehyde (Isobutyraldehyde)	Colorless Liquid	1	-	-	2	X	-	X	X	X	X	X	-	-	-	-	-	-	-	-	-
Isobutyl Carbinol (Primary Isoamyl Alcohol)	Colorless Liquid	1	-	-	2	2	-	2	2	2	2	2	-	-	-	-	-	-	-	-	-
Isobutylamine	Colorless Liquid	1	-	-	-	X	-	X	-	2	X	X	-	-	-	-	-	-	-	-	-
Isobutylene (Isobutene)	Gas	1	-	-	X	1	X	X	-	2	X	-	-	-	-	-	-	-	-	-	-
Isobutylene Liquid (Isobutene Liquid)	Liquid @ 88 PSIG, 120°F (49°C)	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Isobutyraldehyde (Isobutyl Aldehyde)	Colorless Liquid	1	-	-	2	X	-	X	X	X	X	X	-	-	-	-	-	-	-	-	-
Isocyanate (Toluene Diisocyanate)	Water White to Yellow Liquid	1	2	-	X	X	X	X	X	X	1	-	-	-	-	1	1	1	-	-	-
Isocotane	Colorless Liquid	1	2	-	X	1	X	X	1	X	1	1	2	1	X	1	1	1	2	1	-
Isooctyl Adipate	Viscous Liquid	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Isooctyl Alcohol	Clear Liquid	1	1	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Isooctyl Thioglycolate	Water White Liquid	1	1	-	2	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Isopentane	Colorless Liquid	1	2	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Isophorone	Water White Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isophthaloyl Chloride	Liquid above 106°F (41°C)	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Isopropanol (Isopropyl Alcohol)	Colorless Liquid	1	1	1	1	1	2	2	2	1	1	2	1	1	2	1	1	1	1	2	1
Isopropanolamine (MIPA)	Liquid	1	2	-	-	2	-	2	-	1	X	X	-	-	-	-	-	-	-	-	-
Isopropyl Acetate	Colorless Liquid	1	1	1	2	X	X	X	X	2	-	X	-	1	X	1	1	1	1	1	-

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers													Couplings / Adapters						
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
		NOTE: Ratings are for the affect on the polymer only!																			
Isopropyl Alcohol (Isopropanol)	Colorless Liquid	1	1	1	1	1	2	2	2	1	1	2	1	1	2	1	1	1	1	2	1
Isopropyl Benzene (Cumene)	Colorless Liquid	1	2	-	-	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-
Isopropyl Chloride	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Isopropyl Ether	Colorless Liquid	1	1	1	X	X	X	X	X	2	X	X	-	1	X	1	1	1	1	1	-
Isopropylamine	Colorless Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isopropylbenzene (Cumene)	Colorless Liquid	1	2	-	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-
Isopropyltoluene (Cymene)	Colorless Liquid	1	-	-	-	-	-	-	-	-	1	-	-	1	-	1	1	1	1	1	-
J																					
Jet Fuel A and A1?	Liquid	1	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Jet Fuel JP1?	Liquid	1	1	-	X	1	X	X	2	X	1	X	-	1	X	-	-	-	-	-	-
Jet Fuel JP10 (Tetrahydrodicyclopentadiene)?	Liquid	1	-	-	X	X	X	X	X	1	X	-	1	X	-	-	-	-	-	-	-
Jet Fuel JP4?	Liquid	1	1	-	X	1	X	X	2	X	1	X	-	1	X	2	1	1	2	1	-
Jet Fuel JP5?	Liquid	1	1	-	X	1	X	X	X	1	X	-	1	X	2	1	1	2	1	-	-
Jet Fuel JP8?	Liquid	1	1	-	X	1	X	X	X	1	X	-	1	X	2	1	1	2	1	-	-
K																					
Kaolin Clay	White to Yellowish Powder	1	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Karo Syrup	Yellow Liquid	-	-	-	-	-	-	-	-	-	-	-	1	1	-	1	1	-	-	-	-
Kerosene	Water White Oily Liquid	1	1	-	X	1	X	X	X	1	X	1	1	2	1	1	1	1	1	-	-
Ketchup	Red Liquid	-	-	-	-	1	-	-	1	-	-	-	1	-	-	1	1	-	-	-	-
Ketoglutaric Acid	In Water or Alcohol	1	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ketones (ie Acetone, MEK, Cyclohexanone)	Generally Liquids	1	1	1	2	X	X	X	X	2	X	X	-	1	X	1	1	1	1	1	-
Koch Acid	White Solid	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
L																					
Lacquer - Alcohol or Acetate as Solvent	Solution	1	1	1	2	-	-	-	-	X	-	-	-	-	X	X	1	1	1	-	-
Lacquer - Toluene or Xylene as Solvent	Solution	1	-	-	-	X	X	X	X	1	X	-	1	X	X	X	1	1	1	-	-
Lactic Acid (90% or less)	Colorless-Yellow Liquid	1	1	1	2	X	2	2	1	-	1	1	-	X	X	2	1	X	2	-	-
Lactic Acid, Food Grade - 50-80%	Colorless to Yellow Liquid	1	1	1	2	-	X	X	-	X	1	1	-	-	X	2	1	X	2	-	-
Lactic Acid, Plastic Grade - 50-80% or less	Colorless to Yellow Liquid	1	1	1	2	1	-	-	1	-	1	1	-	X	1	X	2	1	X	2	-
Lactic Acid, USP 85-90% or less	Colorless to Yellow Syrupy Liquid	-	-	-	-	-	-	-	-	-	-	-	-	-	X	2	1	X	2	-	-
Lactol	-	1	1	-	-	2	-	-	2	-	-	-	-	-	1	1	1	-	1	-	-
Lard (Fat of the Hog)	Liquid above 108°F (42°C)	1	1	1	X	1	X	X	2	X	1	X	1	1	-	1	1	1	1	X	-
Lard Oil	Colorless to Yellow Liquid	1	1	-	-	-	-	-	2	-	X	-	-	-	-	1	1	1	1	X	-
Lasso (Alachlor)	Colorless Crystals	1	1	-	-	-	1	-	-	-	-	-	-	-	-	1	1	-	-	-	-
Latex Paint	Liquid	1	1	1	1	1	2	2	-	2	1	-	-	1	1	1	1	1	1	-	-
Lauryl Peroxide	White Powder	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lauryl Alcohol	Liquid above 75°F (24°C)	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Lead Acetate	White Crystals	-	-	-	-	-	1	-	-	-	-	-	-	-	2	1	1	-	1	-	-
Lead Acetate Solution	Solution	1	1	1	1	2	2	2	-	2	1	-	1	-	1	2	1	1	-	1	-
Lead Arsenate	White Crystals	1	-	-	-	-	1	-	-	-	-	-	-	-	1	1	1	-	-	-	-
Lead Arsenate Solution (In Nitric Acid)	Solution	1	1	-	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-
Lead Nitrate Solution (In Water or Alcohol)	Solution	1	1	1	1	1	2	2	2	2	1	-	1	-	1	1	1	1	-	-	-
Lead Silicate (basic)	White Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead Sulphate (Basic, Blue Basic, Tribasic)	White to Blue Powder	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1	1	-	-	-	-
Lead, Tetraethyl (Tetraethyl Lead)	Colorless Oily Liquid	1	2	-	X	2	X	X	X	X	1	X	-	2	1	-	-	-	-	-	-
Lead, Tetramethyl (Tetramethyl Lead)	Colorless Liquid	1	-	-	X	2	X	X	X	X	1	X	-	-	-	-	-	-	-	-	-
Lecithin	Light Brown Viscous Liquid-Solid	1	1	-	-	X	-	-	2	-	-	-	-	-	-	1	1	-	-	-	-
Ligroin	Clear Liquid	1	2	-	X	1	X	X	X	X	1	X	-	1	X	2	1	1	-	-	-
Lime (Calcium Oxide)	White to Gray Lumpy Solid	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2	-	-	-
Lime Sulfur Solution	Solution	1	1	1	2	X	X	X	1	X	1	2	-	-	2	2	1	1	X	X	-
Lime, Chlorinated (Bleaching Solution)	Solution	1	1	1	2	2	2	2	X	2	1	X	-	-	2	X	2	1	-	-	-
Lime, Chlorinated (Normal 35-37% Chlorine)	White Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2	-	-	-
Lime, Hydraulic (Calcined Limestone)	Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-

CHEMICAL RESISTANCE TABLE

THE WORLD OF HOSE

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers													Couplings / Adapters							
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro	
Lime, Slaked (Calcium Hydroxide)	White Crystalline Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Limestone	Powder or Lumps	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Limomene	Colorless Liquid	1	2	1	X	X	X	X	-	-	1	-	-	1	-	1	1	1	1	1	-	
Lindane (Ag Spray)	-	1	1	-	-	-	-	-	-	-	-	-	1	-	-	1	1	-	-	-	-	
Linoleic Acid	Colorless to Straw Colored Liquid	1	1	1	X	2	-	-	X	X	1	-	-	1	-	-	-	-	-	-	-	
Linseed Oil	Yellow Amber to Brown Liquid	1	1	X	2	2	X	X	2	-	1	1	1	1	1	2	1	1	1	2	-	
Liquid Soap	Liquid	1	1	1	2	-	2	2	-	2	-	-	-	2	1	1	1	1	1	1	-	
Lithium Chloride	White Crystals	-	-	X	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Lithium Chloride (35-40% Brine)	Solution	X	1	X	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	
Lubricating Oil Diester Under 135°F [57°C]	Liquid	1	1	-	X	2	X	X	-	X	1	-	-	X	1	1	1	1	1	1	-	
Lubricating Oil [SAE 10, 20, 30, 40, & 50]	Liquid	1	-	-	-	2	-	-	2	-	-	-	1	-	1	1	1	1	1	1	-	
Lubricating Oil Under 120°F [49°C]	Liquid	1	1	-	X	1	X	X	2	X	1	2	1	1	2	1	1	1	1	1	-	
M																						
Machine Oil Under 135°F [57°C]	Liquid	1	1	-	X	1	X	X	1	X	1	2	-	1	2	1	1	1	1	1	-	
Magnesite	White to Brown Crystalline Solid	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Magnesium	Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Magnesium Acetate	Colorless Crystalline Aggregate	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Magnesium Acetate Solution	In Water or Alcohol	1	1	1	1	1	1	1	-	1	1	1	1	1	1	-	-	-	-	-	-	
Magnesium Carbonate	White Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1	1	-	-	-	
Magnesium Carbonate Solution (in Acid)	Liquid Solution	1	1	1	-	-	-	-	-	1	-	-	-	-	-	1	1	1	-	-	-	
Magnesium Chloride	Colorless to White Crystals	1	-	1	-	-	-	1	-	-	-	-	-	-	X	2	1	X	2	-	-	
Magnesium Chloride Brine	Solution	1	1	1	1	1	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	
Magnesium Chloride, Hydrated (in H2O or Alcohol)	Solution	1	1	1	1	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	
Magnesium Hydroxide	White Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1	1	X	-	-	
Magnesium Hydroxide Solution (in Dilute Acid)	Liquid Solution	1	1	1	-	-	-	-	-	1	-	-	-	-	-	1	1	1	X	-	-	
Magnesium Nitrate	White Crystals	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1	1	X	1	-	
Magnesium Nitrate Solution (in H2O or Alcohol)	Liquid Solution	1	1	1	1	1	-	-	-	-	1	-	-	-	-	1	1	1	X	1	-	
Magnesium Oxide, Dry	White Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Magnesium Oxide, Slurry	-	1	1	-	1	2	-	2	1	-	1	-	-	-	-	-	-	-	-	-	-	
Magnesium Sulfate Solution	Liquid Solution	1	1	1	1	1	1	1	2	1	1	1	1	-	1	2	1	1	-	1	-	
Malathion (Ag Spray Dilute)	Clear to Amber Liquid	1	1	1	2	-	X	X	-	1	1	-	-	1	1	1	1	1	-	1	-	
Malathion (Ag Spray)	Clear to Amber Liquid	1	1	-	2	-	-	-	-	1	-	-	-	1	-	1	1	1	-	1	-	
Maleic Acid	Liquid	NO HOSE AVAILABLE															2	2	1	-	-	-
Maleic Acid Solution	Solution	1	1	1	1	2	2	2	X	-	7	-	-	-	X	2	2	1	-	-	-	
Maleic Anhydride	Colorless Needles	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Maleic Anhydride (Heated Liquid)	Liquid above 124°F [53°C]	1	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Malic Acid (dl form)	Colorless Crystals	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Malic Acid Solution (in H2O or Alcohol)	Solution	1	1	1	2	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	
Malt Extract (Maltine)	Light Brown Viscous Liquid	1	1	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	
Malt, Dry	Yellow to Amber Grain	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Maltine (Malt Extract)	Light Brown Viscous Liquid	1	1	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	
Manganese Salts	-	1	1	-	-	1	X	X	-	-	1	1	-	-	1	-	-	-	-	-	-	
Manganese Sulfate (Manganous Sulfate)	Pale Red Solid	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Manganese Sulfate Solution	Solution in Water	1	1	-	-	1	2	2	-	-	1	1	1	-	1	-	-	-	-	-	-	
Manganese Sulfide (Manganous Sulfide)	Green Crystals	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Manganese Sulfite (Manganous Sulfite)	Black to Brownish Red Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	
MAPP Gas (Methylacetylene Propadiene)	Liquid	USE 20B-HB HOSE ONLY															-	-	-	-	-	-
Maxmul (Penzoil Hydraulic Fluid)	Liquid	1	-	-	-	1	-	-	2	-	-	-	-	-	-	1	-	1	-	-	-	
Mayonnaise	Semi-Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	
MBK (Methyl Butyl Ketone)	Colorless Liquid	1	1	-	2	X	X	X	X	2	X	X	2	-	X	1	1	1	1	1	-	
MEA (Ethanolamine)	Colorless Viscous Liquid	1	1	1	2	2	2	2	2	1	X	X	1	-	2	-	-	-	-	-	-	
MEK (Ethyl Methyl Ketone)	Colorless Liquid	1	2	1	2	X	X	X	X	2	X	X	2	1	X	1	1	1	1	1	-	

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers													Couplings / Adapters					
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass
Mercuric Chloride	White Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	X	1	1	X	X	-
Mercuric Chloride Solution (in H2O, or Alcohol)	Solution	1	1	-	2	2	2	1	1	2	-	1	1	-	2	X	1	1	X	X
Mercuric Cyanide	Colorless Transparent Prisms	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	X	-	
Mercuric Cyanide Solution (in H2O or Alcohol)	Solution	1	1	-	2	2	2	2	1	2	-	1	-	-	-	-	-	X	-	
Mercurous Nitrate Solution	Solution	1	1	1	2	-	-	-	-	1	-	-	-	-	-	1	1	1	X	-
Mercury	Silver Liquid	1	1	1	-	2	2	2	1	2	-	1	1	-	1	1	1	X	X	
Mercury Vapor	Gas	NO HOSE AVAILABLE													1	1	1	-	-	
Mesityl Oxide (Methyl Isobutenyl Ketone)	Colorless Oily Liquid	1	1	1	2	X	X	X	X	2	X	X	2	-	X	1	1	1	1	1
Mesitylene (Trimethylbenzene)	Liquid	1	-	-	X	X	X	X	X	X	1	-	-	1	X	-	-	-	-	
Metallic Soaps (Aluminium, Calcium, Zinc)	Solids @ Room Temperature	1	1	1	X	1	X	X	-	X	1	2	1	-	-	1	1	1	1	1
Methyl Alcohol (Methylalyl Alcohol)	Colorless Liquid	1	-	-	-	1	-	2	-	2	2	2	-	-	-	-	-	-	-	
Methane	Gas	1	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	
Methanol (Methyl Alcohol)	Colorless Liquid	1	1	1	1	1	1	1	1	1	X	1	1	1	2	1	1	1	1	2
Methionine	White Crystalline Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	
Methoxychlor Solution (in Alcohol)	Solution	1	1	-	-	-	-	-	-	-	-	-	-	1	-	1	1	1	-	
Methylamine (Monomethylamine)	Liquid	1	-	-	-	-	-	-	-	-	-	-	-	1	X	1	1	1	-	
Methyl Acetate	Colorless Liquid	1	2	-	2	X	X	X	X	2	X	X	1	1	X	1	1	1	1	1
Methyl Acetoacetate	Colorless Liquid	1	-	-	2	X	-	X	X	2	X	X	-	-	-	-	-	-	-	
Methyl Acetone	Water White Liquid	1	-	-	1	X	-	X	-	2	X	X	-	-	1	-	-	-	-	
Methyl Acrylate (Inhibited)	Colorless Liquid	1	2	-	2	X	X	X	X	X	X	X	-	-	-	1	1	1	1	1
Methyl Acrylate Acid (Methylacrylic Acid)	White Solid	1	1	1	2	X	X	-	1	1	-	1	X	-	-	-	-	-	-	
Methyl Alcohol (100%) (Methanol)	Colorless Liquid	1	1	1	1	1	1	1	1	1	X	1	1	1	2	1	1	1	1	2
Methyl Bromide	Liquid @ 55 PSIG @ 120°F (49°C)	1	1	-	X	X	X	X	X	X	1	X	-	1	X	1	1	1	-	1
Methyl Bromoacetate	Colorless to Straw Colored Liquid	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Methyl Butanethiol (Butyl Mercaptan)	Liquid	1	1	-	X	-	X	X	-	X	1	-	-	-	X	-	1	1	-	-
Methyl Butanol (2-Methyl-1-Butanol)	Colorless Liquid	1	1	1	1	1	-	-	-	1	1	-	1	1	1	-	-	-	-	
Methyl Butyl Ketone (MBK)	Colorless Liquid	1	1	-	2	X	X	X	X	2	X	X	2	-	X	1	1	1	1	1
Methyl Carbitol (Diethylene Glycol Methyl Ether)	Colorless Liquid	1	1	-	1	-	X	X	-	X	1	X	1	-	-	-	-	-	-	
Methyl Cellosolve (Diethylene Glycol Methyl Ether)	Colorless Liquid	1	1	-	1	-	X	X	-	X	1	X	1	-	-	-	-	-	-	
Methyl Chloride	Liquid @ 160 PSIG @ 120°F (49°C)	1	2	-	X	X	X	X	X	X	1	X	X	-	X	1	1	1	-	1
Methyl Chloroform (1,1,1 Trichloroethane)	Colorless Liquid	1	2	-	X	X	X	X	X	X	1	X	X	X	X	-	-	-	-	
Methyl Chloroformate	Colorless Liquid	1	-	-	X	X	X	X	X	X	1	X	-	-	-	-	-	-	-	
Methyl Cyanide (Acetonitrile)	Colorless Liquid	1	1	2	2	X	2	2	X	X	X	X	1	-	1	1	1	-	-	
Methyl Cyclohexane	Colorless Liquid	1	-	-	X	1	X	X	-	X	1	X	2	1	-	-	-	-	-	
Methyl Ethyl Ketone (MEK)	Colorless Liquid	1	2	1	2	X	X	X	X	2	X	X	2	1	X	1	1	1	1	1
Methyl Formate	Colorless Liquid	1	1	-	2	X	X	X	2	2	X	X	-	-	-	1	1	1	1	1
Methyl Hexanol	-	1	-	-	-	1	-	1	-	1	2	1	-	-	-	-	-	-	-	
Methyl Hexanone (Methyl Isoamyl Ketone)	Colorless Liquid	1	-	-	-	X	-	X	-	2	X	X	-	-	-	-	-	-	-	
Methyl Hexyl Ketone	Colorless Liquid	1	-	-	-	X	-	X	-	2	X	X	-	-	-	-	-	-	-	
Methyl Isoamyl Ketone (Methyl Hexanone)	Colorless Liquid	1	-	-	-	X	-	X	-	2	X	X	-	-	-	-	-	-	-	
Methyl Isobutenyl Ketone (Mesityl Oxide)	Colorless Oily Liquid	1	1	1	2	X	X	X	X	2	X	X	2	-	X	1	1	1	1	1
Methyl Isobutyl Ketone (MIBK)	Colorless Liquid	1	2	-	-	X	X	X	X	2	X	X	2	1	X	-	-	-	-	
Methyl Isopropyl Ketone	Colorless Liquid	1	2	-	2	X	X	X	X	2	X	X	2	1	X	1	1	1	1	1
Methyl Methacrylate	Colorless Liquid	1	2	-	2	X	X	X	X	X	X	2	2	-	1	1	1	1	-	-
Methyl Methacrylate Monomer, Inhibited	Colorless Liquid	1	-	-	X	X	X	X	X	X	X	X	-	X	X	-	-	-	-	
Methyl Phenol (Cresol)	Liquid above 95°F (35°C)	1	2	-	-	X	X	X	X	2	1	X	1	X	-	2	1	1	1	2
Methyl Propyl Carbinol (2 Pentanol)	Colorless Liquid	1	1	1	1	-	-	-	-	1	1	-	1	-	-	-	-	-	-	
Methyl Propyl Ether	Colorless Liquid	1	-	-	-	X	-	X	-	X	-	2	-	-	-	-	-	-	-	
Methyl Propyl Ketone (Pentanone)	Water White Liquid	1	-	-	2	X	-	X	X	2	X	X	-	-	X	-	-	-	-	
Methyl Salicylate	Yellow to Red Liquid	1	1	-	2	2	-	-	2	2	-	-	-	-	1	1	1	1	1	1
Methyl Stearate	Liquid above 99°F (38°C)	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Methyl Sulfate (Dimethyl Sulfate)	Colorless Liquid	1	1	-	X	X	X	X	X	2	X	X	-	1	1	-	-	-	-	-

CHEMICAL RESISTANCE TABLE

THE WORLD OF HOSE

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers														Couplings / Adapters						
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro	
Methyl-2-Pyrrolidone	Colorless Liquid	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl-n-Amyl Carbinol	Colorless Liquid	1	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Methyl-n-Amylketone	Water White Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylacetylene Propadiene (MAPP Gas)	Liquid @ 107 PSIG @ 20°C	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylacrylic Acid (Crotonic Acid)	White Crystalline Solid	1	1	1	2	2	X	X	-	1	1	-	1	X	-	-	-	-	-	-	-	-
Methylal	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Methylalyl Alcohol (Methylal Alcohol)	Colorless Liquid	1	-	-	-	1	-	2	-	2	2	2	-	-	-	-	-	-	-	-	-	-
Methylalyl Chloride	Colorless to Straw Colored Liquid	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Methylamine (30-40% in H2O)	Colorless Liquid	1	1	-	2	X	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-
Methylamine (Anhydrous)	Liquid @ 120 PSIG @ 49°C	1	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-
Methylamyl Acetate	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylamyl Alcohol	Colorless Liquid	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Methylaniline	Colorless to Brown Liquid	1	1	1	2	X	-	-	X	-	1	2	-	X	X	-	-	-	-	-	-	-
Methyldiethanolamine	Colorless Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Bromide	Clear Liquid	1	-	-	-	2	-	-	-	-	1	-	-	-	X	-	-	-	-	-	-	-
Methylene Chloride (Dichloromethane)	Colorless Liquid	1	1	2	X	X	X	X	X	X	2	X	X	X	X	1	1	1	1	1	1	-
Methylene Dichloride	Colorless Liquid	1	1	-	X	X	X	X	X	X	1	X	X	X	X	1	1	1	X	1	-	-
Methylene Dichloride (Methylene Chloride)	Colorless Liquid	1	1	2	X	X	X	X	X	X	1	X	X	X	X	1	1	1	X	1	-	-
Methylene Diphenyl Diisocyanate, MDI	Liquid above 37°C	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylstyrene	Colorless Liquid	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
MIBK (Methyl Isobutyl Ketone)	Colorless Liquid	1	2	-	-	X	X	X	X	2	X	X	2	1	X	-	-	-	-	-	-	-
Milk	White Liquid	USE FDA HOSE ONLY																				
Mineral Oil	Colorless Liquid	1	1	1	X	1	X	X	1	X	1	1	1	1	1	1	1	1	2	1	-	-
Mineral Spirits (VM&P Naphtha)	Colorless Liquid	1	1	-	X	1	X	X	-	X	1	X	-	1	-	1	1	1	2	1	-	-
MIPA (Isopropanolamine)	Liquid	1	-	-	-	2	-	2	-	1	X	X	-	-	-	-	-	-	-	-	-	-
Mobile Therm 603	Liquid	1	1	-	-	1	-	-	-	-	1	-	-	-	-	1	1	1	1	1	-	-
Molasses	Brown Liquid	1	1	-	1	2	2	2	2	1	1	1	-	-	2	2	1	1	2	X	-	-
Monochloroacetic Acid	Colorless to Light Brown Crystals	1	1	X	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Monochloroacetic Acid Solution (in H2O or Alcohol)	Liquid Solution	1	1	X	2	-	-	-	-	-	-	-	-	X	-	X	X	X	-	2	1	-
Monochlorobenzene	Clear Liquid	1	2	-	X	X	X	X	X	X	1	X	X	X	X	1	1	1	-	1	-	-
Monoethanolamine	Colorless Liquid	1	2	1	2	2	2	2	2	2	X	X	1	1	2	1	1	1	-	1	-	-
Monoethylamine	Liquid @ 15 PSIG @ 120°F (49°C)	1	2	-	1	X	X	X	X	2	X	X	1	-	-	-	1	1	-	1	-	-
Monoethylamine Solution (70% or less)	Liquid Solution	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Monoglycerides	Liquid to Solid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Monomethylamine (Methylamine)	Liquid @ 120 PSIG @ 120°F (49°C)	1	-	-	-	-	-	-	-	-	-	-	-	-	X	1	1	1	-	-	-	-
Monopentaerythritol (Pentaerythritol)	White Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Monopentaerythritol Solution	Liquid Solution	1	1	1	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Monosodium Phosphate (Monobasic)	White Powder	1	1	-	2	-	2	2	X	2	-	-	1	1	1	-	1	1	X	X	-	-
Morpholine	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mortar, Inorganic	Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Motor Oil	Liquid	1	1	-	X	1	X	X	2	X	1	2	1	1	2	1	1	1	1	1	-	-
Mould Oil	Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-
Mouth Wash	Liquid	1	-	1	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	-	-
MTBE (Methyl Tertiary Butyl Ether)	Colorless Liquid	-	2	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-
Muriatic Acid (Hydrochloric)	Colorless to Yellow Liquid	1	1	1	X	X	2	2	X	2	1	2	1	X	X	X	X	X	X	X	-	-
Mustard	Liquid	1	-	-	-	-	1	1	1	1	-	1	-	-	-	X	1	1	-	-	-	-
N																						
n-Hexaldehyde	Colorless Liquid	1	1	-	2	X	X	X	2	1	-	-	-	-	-	-	-	-	-	-	-	-
N-Methyl-2-Pyrrolidone	Colorless Liquid	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
n-Octane	Colorless Liquid	1	2	1	X	1	X	X	-	X	1	X	1	1	X	-	-	-	-	-	-	-
Naphtha (Low Aromatic Content)	Liquid	1	1	-	X	2	X	X	X	X	1	X	1	-	X	2	1	1	-	1	-	-
Naphthalene	White Crystalline Flakes	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1	1	1	1	-	-

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers														Couplings / Adapters					
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
Naphthenic Acid	Commercial Grade is Dark Fluid	1	1	-	-	2	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-
Neohexane	Colorless Liquid	1	-	-	X	1	-	-	2	-	1	-	-	1	-	-	-	-	-	-	-
Neutral Oil	Liquid	1	1	1	X	2	X	X	2	X	1	-	-	1	-	1	1	1	-	1	-
Nickel Acetate	Green Crystals	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1	1	1	1	-
Nickel Acetate Solution (In Water or Alcohol)	Solution	1	1	1	2	-	2	2	-	1	-	-	-	-	-	1	1	1	1	1	-
Nickel Carbonate	Green to Brown Crystals/Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel Chloride	Brown Deliquescent Scales	-	-	-	-	-	-	1	-	-	-	-	-	-	-	X	2	2	X	X	-
Nickel Chloride Solution (In Water or Alcohol)	Solution	1	1	-	2	2	2	2	2	2	1	2	1	-	1	X	2	2	X	X	-
Nickel Nitrate	Green Deliquescent Crystals	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2	X	-	-
Nickel Nitrate Solution (In Water or Alcohol)	Solution	1	1	-	2	2	2	2	2	2	1	2	1	-	2	-	-	2	X	-	-
Nickel Plating Solution	Liquid	1	1	-	-	2	2	2	-	-	-	2	-	-	X	-	1	1	-	-	-
Nickel Salts	-	1	1	-	1	1	1	1	1	1	1	1	-	1	2	-	-	-	-	-	-
Nickel Sulfate	Yellow Green to Blue Crystals	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	2	1	X	X	-
Nickel Sulfate Solution	Solution	1	1	-	2	2	2	2	2	2	1	2	1	-	1	-	2	1	X	X	-
Nicotine Salts (ie Nicotine Hydrochloride)	Colorless Oil	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	X	2	-	-
Niter Cake [Sodium Bisulfate]	Colorless Crystals to White Lumps	1	1	-	1	1	1	1	1	1	1	1	1	1	1	X	1	1	X	X	-
Niter Cake Solution	Solution	1	1	1	2	-	X	X	-	2	1	1	1	-	-	-	-	-	-	-	-
Nitric Acid (25% or less)	Colorless Liquid	1	1	1	2	X	X	X	X	2	1	2	1	X	X	X	2	2	-	X	-
Nitric Acid (10%)	Transparent or Yellowish Liquid	1	1	1	1	X	X	X	X	2	1	2	1	X	X	X	2	2	-	X	-
Nitric Acid (25%)	Transparent or Yellowish Liquid	1	1	1	2	X	X	X	X	2	1	2	1	X	X	X	2	2	-	X	-
Nitric Acid (35% or less, 26 Degrees Baume)	Colorless Liquid	1	1	1	2	X	X	X	X	2	1	1	X	X	X	X	2	2	-	X	-
Nitric Acid (52% or less, 36 Degrees Baume)	Colorless to Yellow Liquid	1	2	X	X	X	X	X	X	X	1	2	X	X	X	X	2	2	-	X	-
Nitric Acid (61% or less, 40 Degrees Baume)	Colorless to Yellow Liquid	1	2	X	X	X	X	X	X	X	1	2	X	X	X	X	2	2	-	X	-
Nitric Acid (63.5% or less)	Transparent or Yellowish Liquid	1	X	X	X	X	X	X	X	X	1	X	X	X	X	X	2	2	-	X	-
Nitric Acid (67% or less, 42 Degrees Baume)	Colorless to Yellow Liquid	1	X	X	X	X	X	X	X	X	1	X	X	X	X	X	2	2	-	X	-
Nitric Acid (95% or less, 48.5 Degrees Baume)	Yellow Liquid	1	X	X	X	X	X	X	X	X	1	X	X	X	X	X	2	2	-	X	-
Nitric Acid (Red Fuming)	Red Liquid	1	X	X	X	X	X	X	X	X	1	X	X	X	X	-	-	-	-	-	-
Nitrobenzene	Yellow Liquid @ 43°F [6°C]	1	2	-	2	X	X	X	X	X	2	X	X	2	X	1	1	1	1	1	-
Nitroethane	Colorless Liquid	1	1	-	2	X	2	2	X	2	-	2	1	-	-	-	-	1	1	1	-
Nitrogen [Cryogenic Liquid]	Liquid	NO HOSE AVAILABLE														1	1	1	1	1	-
Nitrogen [Gas]	Colorless Gas	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-
Nitrogen Dioxide [Nitrogen Tetroxide]	Liquid @ 50 PSIG @ 120°F (49°C)	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Nitrogen Fertilizer [Ammonia, Urea]	Solutions in Water	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen Oxide [Nitrous Oxide]	Gas	1	1	-	2	X	X	X	X	1	1	1	1	X	X	1	1	1	X	-	-
Nitrogen Tetroxide [Nitrogen Dioxide]	Liquid @ 50 PSIG @ 120°F (49°C)	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Nitromethane	Colorless Liquid	1	-	-	2	X	-	2	X	2	X	X	-	1	X	-	1	1	-	1	-
Nitropropane	Colorless Liquid	1	1	-	2	X	X	X	X	2	X	-	-	1	-	-	1	1	-	1	-
Nitrosyl Chloride	Yellow-Red Liquid or Gas	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-
Nitrous Acid (Up to 10%)	Light Blue Liquid	1	1	1	-	-	-	-	1	-	-	1	-	1	1	X	1	1	X	X	-
Nitrous Oxide [Nitrogen Oxide]	Gas	1	1	-	2	X	X	X	X	1	1	1	1	X	X	1	1	1	X	-	-
Nitrous Oxide, Compressed Liquid	Liquid @ 800 PSIG @ 68°F [20°C]	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nonene [1-nonylene]	Colorless Liquid	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Nonyl Alcohol [Octyl Carbinol]	Colorless Liquid	1	1	1	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Nonylene [Nonene]	Colorless Liquid	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
0																					
Octadecanoic Acid [Stearic Acid]	Colorless Waxy Solid	1	1	1	2	2	2	2	2	2	1	2	1	1	1	X	2	1	X	X	-
Octanoic Acid [Caprylic Acid]	Colorless Oily Liquid	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Octanol [Octyl Alcohol]	Colorless Liquid	1	1	-	-	2	2	2	2	-	1	-	-	1	1	2	1	1	1	1	2
Octene	Colorless Liquid	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Octyl Acetate	Colorless Liquid	1	-	-	-	X	-	X	-	X	X	1	-	-	-	-	-	-	-	-	-
Octyl Alcohol [Octanol]	Colorless Liquid	1	1	-	-	2	2	2	2	-	1	-	-	1	1	2	1	1	1	1	2
Octyl Aldehyde	Colorless Liquid	1	-	-	-	X	-	X	-	X	X	X	-	-	-	-	-	-	-	-	-

CHEMICAL RESISTANCE TABLE

THE WORLD OF HOSE

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers														Couplings / Adapters					
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
Octyl Carbinol (Nonyl Alcohol)	Colorless Liquid	1	1	1	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Octyl Phenol [Diisobutyl Phenol]	White Flakes	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Octylamine	Water White Liquid	1	-	-	-	X	-	X	-	2	X	X	-	-	-	-	-	-	-	-	-
Oil (SAE Motor Oils)	Liquid	1	1	-	X	1	X	X	2	X	1	2	1	1	2	-	-	-	-	-	-
Oil of Turpentine	Liquid	1	2	2	X	1	X	X	2	X	1	X	-	1	1	-	-	-	-	-	-
Oils, Animal (High Fatty Acid Content)	Solid to Liquids	1	2	-	X	1	X	X	2	2	1	X	1	-	2	1	1	1	1	1	-
Oils, Mineral (Aliphatic or Aromatic)	Liquids	1	2	-	X	2	X	X	X	X	1	2	2	1	X	-	-	-	-	-	2
Oils, Vegetable (Soybean, Coconut, Corn)	Liquids	1	1	-	X	1	X	X	-	X	1	X	-	1	-	-	-	-	-	-	1
Oleic Acid (fatty acid)	Yellow to Red Oily Liquid	1	2	2	2	X	X	X	2	2	2	X	2	-	2	2	2	1	1	2	1
Oleum (Fuming Sulfuric, 30% SO3 or less)	Clear to Off White Fuming Liquid	1	X	X	X	X	X	X	X	X	1	X	X	X	X	-	-	1	-	-	X
Olive Oil	Yellow to Green Liquid	1	1	1	2	2	X	X	X	2	1	X	2	1	2	2	1	1	1	2	1
Ortho-Dichlorobenzene (also meta and para)	Colorless Liquid	1	2	-	X	X	X	X	X	X	1	X	X	1	X	-	1	1	-	1	-
Ortho-xylene (1,2 Dimethylbenzene)	Clear Colorless Liquid	1	X	X	X	X	X	X	X	X	1	X	X	X	X	-	-	-	-	-	-
OS 45 Hydraulic Fluid (Silicate Ester Base)	Liquid	1	-	-	X	2	X	X	1	X	1	2	-	-	-	-	-	-	-	-	-
Oxalic Acid	Transparent Crystals	1	-	2	-	-	-	1	-	-	-	-	-	-	X	2	1	2	X	1	-
Oxalic Acid (50%)	Crystals in H2O	1	2	1	2	X	X	X	X	2	1	2	1	X	X	-	-	-	-	-	-
Oxygen	Colorless Gas	1	1	-	1	2	2	2	-	1	1	1	1	-	-	-	-	-	-	-	-
Oxygen, Refrigerated Liquid	Liquid @ 200 PSIG @ -146°C	NO HOSE AVAILABLE																			
Ozone	Gas	1	2	2	1	X	X	X	2	2	2	2	2	1	2	1	1	1	1	1	1
P																					
Paint (Emulsion or Latex)	Liquid	1	1	1	2	2	-	-	-	-	1	-	-	1	1	-	-	-	-	-	-
Paint (Inorganic)	Liquid	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	-
Paint (Oil or Solvent Based)	Liquid or Paste	1	1	-	X	2	X	X	-	X	1	X	-	1	-	-	-	-	-	-	-
Paint Remover	Liquid or Paste	1	2	-	X	X	X	X	X	X	1	X	-	X	-	-	-	-	-	-	-
Paint Resin	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Palm Oil	Yellow to Brown Solid	1	1	-	-	1	X	X	2	2	-	2	-	-	-	1	1	1	1	1	-
Palmitic Acid (Hexadecanoic Acid)	Crystals in Hot Alcohols	1	1	1	2	2	X	X	2	2	1	X	1	-	-	1	2	1	1	X	1
Papermakers Alum (Aluminum Ammonium Sulfate)	In Water	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Paraffin (Aliphatic Hydrocarbon)	Varies from Gas to Waxy Solid	1	1	1	X	1	X	X	2	X	1	X	1	-	-	2	1	1	-	1	-
Paraformaldehyde	White Solid - Flakes or Powder	1	-	-	-	2	-	1	2	-	-	-	-	-	1	-	1	1	1	-	-
Paraldehyde	Colorless Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Paranox (Detergent, Disperser; Exxon)	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Paraprot (Liquid Polyisobutylene; Exxon)	Liquid	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Peanut Oil	Yellow to Green Liquid	1	1	-	-	1	-	-	2	X	-	-	-	-	2	1	1	1	1	1	1
Petargonic Acid	Colorless to Yellow Oil	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentachloroethane	Colorless Liquid	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol In Oil	In Oil (Wood Preservative)	1	1	1	X	X	X	X	X	1	1	-	-	-	X	-	-	-	-	-	-
Pentaerythritol (Monopentaerythritol)	White Powder	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Pentane	Colorless Liquid	1	X	X	X	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
Pentanol (Methyl Propyl Carbinol)	Colorless Liquid	1	1	1	1	-	-	-	-	1	1	-	1	-	-	-	-	-	-	-	-
Pentanone (Methyl Propyl Ketone)	Water White Liquid	1	-	-	2	X	-	X	X	2	X	X	-	X	-	-	-	-	-	-	-
Pentasol (Amyl alcohols, primary and secondary)	Liquid	1	2	2	2	2	2	2	2	2	1	2	1	1	2	1	1	1	1	1	-
Perchloric Acid (70%)	70% or Less with H2O	1	2	1	-	-	2	2	2	2	1	2	-	X	X	-	2	1	-	-	1
Perchloroethylene	Colorless Liquid	1	2	-	X	X	X	X	X	X	1	X	2	2	X	1	1	1	-	X	-
Petroleum Coke	Solid Pellets	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Petroleum Distillate	Liquid	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Petroleum Ether (Naptha)	Liquid	1	1	-	X	2	X	X	X	X	1	X	1	-	X	2	1	1	-	1	-
Petroleum Naptha (Toluene/cyclohexane/Xylene)	Liquid	1	X	X	X	X	X	X	X	X	1	X	X	X	X	-	-	-	-	-	-
Petroleum Naptha Flash Point Over 200 Degrees	Liquid	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Petroleum Oils (Refined)	Liquid	1	1	1	X	1	X	X	2	X	1	2	-	1	1	-	-	-	-	-	-
Petroleum Oils (Sour)	Liquid	1	1	1	X	1	X	X	2	X	1	X	-	-	2	-	-	-	-	-	-
Petroleum Paraffin Wax	Solid with low Melt Points	1	2	2	X	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers														Couplings / Adapters					
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
Phenol (Carbolic Acid)	White or Pink Crystals	1	2	-	2	X	X	X	X	2	1	X	1	X	X	X	1	1	2	X	-
Phenol Acid	95% or less with H2O	1	2	2	2	X	X	X	X	2	1	X	1	X	X	X	1	1	-	X	-
Phenolates	-	1	-	-	-	X	-	-	X	-	2	X	-	2	-	-	-	-	-	-	-
Phenolsulfonic Acid	Yellow to Brown Liquid	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Phenothiazine	Greenish Powder or Flakes	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenyl Acetate	Water White Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenyl Chloride (Chlorobenzene)	Clear Volatile Liquid	1	2	-	X	X	X	X	X	X	1	X	X	X	X	1	1	1	1	1	X
Phenylenediamine (ortho)	Colorless to Red Solid Needles	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Phorone (Diisopropylidene Acetone)	Yellow Liquid	1	1	-	2	X	X	X	X	2	X	X	-	-	-	1	1	1	-	1	-
Phosgene (Carbonyl Chloride)	Gas, Liquid 60 PSI @ 120°F (49°C)	1	X	X	X	X	X	X	X	2	1	X	-	2	-	-	-	-	-	-	-
Phosphate Ester Hydraulic Fluid	Liquid	1	1	1	1	X	X	X	X	-	-	X	-	2	-	-	-	-	-	-	-
Phosphate Rock	Solid	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphate, Trisodium	In Water	1	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Phosphoric Acid (100%)	Crystals	1	2	X	2	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Phosphoric Acid (35% or less)	Colorless Liquid	1	1	1	1	2	2	2	2	2	1	1	1	-	-	X	1	1	X	2	1
Phosphoric Acid (50%)	Colorless Liquid	1	1	1	1	2	2	2	2	2	1	1	1	X	X	X	1	1	X	2	1
Phosphoric Acid (75%)	Colorless Liquid	1	2	1	2	-	-	-	-	-	1	1	1	X	X	X	2	2	X	X	1
Phosphoric Acid (85%)	Syrupy Liquid	1	2	1	2	X	X	X	X	X	1	1	1	X	X	X	2	2	X	X	1
Phosphoric Acid (90%)	Syrupy Liquid	1	2	1	2	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Phosphoric Acid, Spent	Liquid	1	1	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Photographic, Developers	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Photographic, Emulsions	Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Photographic, Fixing Solutions	Liquid	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Phthalic Acid	Colorless Crystals	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Phthalic Acid (50%)	Colorless Liquid	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phthalic Anhydride, Molten	White Crystalline Solid	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Picric Acid (Solution)	In Water	1	2	2	2	-	-	-	-	-	1	-	-	-	X	1	1	X	X	1	-
Picric Acid (Trinitrophenol)	Yellow Crystals	1	2	2	2	2	2	2	2	2	1	2	-	X	1	X	1	1	X	X	1
Pine Oil	Colorless to Amber Liquid	1	1	-	X	2	X	X	-	X	2	X	2	-	-	-	-	-	-	-	-
Pine Tar	Viscous Brown to Black Liquid	1	2	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Pinene	Colorless Transparent Liquid	1	1	-	X	2	X	X	X	X	1	-	2	1	X	1	1	1	-	-	-
Piperazine Hydrochloride Solution (34%)	In Water	1	1	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pitch	In Aromatic Hydrocarbons	1	2	X	X	2	X	X	X	X	1	X	-	1	X	-	-	-	-	-	-
Plating Solution Chrome Under 120°F (49°C)	Liquid	1	1	-	2	-	-	-	-	2	2	-	-	X	X	-	X	X	-	-	1
Pluronic (Block Polymer with Hydroxyl by BASF)	Liquid	1	1	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Polyester Plastic	-	1	1	-	-	-	-	-	-	-	2	-	-	2	-	-	-	-	-	-	-
Polyethylene Glycol	Colorless Liquid to glassy Solid	1	-	-	1	2	-	1	1	1	1	1	-	2	2	-	-	-	-	-	-
Polyethylene Plastic	Solid Beads	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Polypropylene Glycol	Liquid	1	1	-	1	1	-	1	1	1	1	1	-	-	-	-	-	-	-	-	-
Polypropylene Plastic	Solid Beads	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Polystyrene Plastic	Solid Beads	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Polyurethane Foam Under 125°F (52°C)	-	1	1	-	2	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-
Polyvinyl Acetate - Emulsions	Emulsion	1	-	-	1	1	-	1	2	1	-	1	-	-	-	-	-	-	-	-	-
Potash (Potassium Carbonate) Aqueous Solution	Liquid	1	1	-	1	-	1	1	1	1	1	1	-	1	1	2	1	1	-	X	1
Potassium Acetate	White Powder	1	1	-	2	2	2	2	2	2	X	2	1	-	1	-	1	1	-	-	1
Potassium Bicarbonate	Colorless crystal or white Powder	1	1	-	1	1	1	1	1	1	1	1	-	1	1	-	-	-	-	-	-
Potassium Bisulfate	Colorless crystal	1	1	-	1	1	1	1	1	1	1	1	-	1	1	-	-	-	-	-	-
Potassium Bromate	White Crystal or Powder	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Potassium Bromide	White Crystals or Powder	1	1	-	1	1	1	1	1	1	1	1	-	1	1	-	-	-	-	-	-
Potassium Carbonate	White granular Powder	1	1	-	1	1	1	1	1	1	1	1	1	1	1	2	1	1	-	X	1
Potassium Carbonate, Liquid	Colorless to Cloudy Liquid	1	1	-	1	1	1	1	1	1	1	1	-	1	1	2	1	1	-	X	1
Potassium Chlorate	Colorless to white Powder	1	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-

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		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
Potassium Chloride	Colorless to white Solid	1	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	
Potassium Chloride, Dry	White Solid	1	1	-	1	1	1	1	1	1	1	1	1	1	-	1	1	-	-	-	
Potassium Chromate	Yellow Crystal	1	2	-	2	X	X	X	2	2	1	2	1	2	1	-	-	-	-	1	
Potassium Cuprocyanide	White Crystalline Solid	1	-	-	1	1	1	1	1	1	1	1	-	2	1	-	-	-	-	1	
Potassium Cyanide	White Crystal	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	
Potassium Dichromate	White Crystalline Powder	1	-	-	-	-	-	-	-	-	-	1	2	1	-	-	-	-	-	-	
Potassium Ferrocyanide	Yellow Crystal or Powder	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	
Potassium Fluoride	White Crystalline Powder	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Potassium Hydrate	White Solid	1	-	-	2	2	2	2	2	1	X	1	-	2	2	-	-	-	-	-	
Potassium Hydroxide (45% Caustic Potash)	Colorless to Cloudy Liquid	1	1	1	2	2	2	2	-	1	2	-	1	1	1	-	-	-	-	-	
Potassium Hydroxide, Liquid	Colorless to Cloudy Liquid	1	1	-	1	2	2	2	2	1	X	2	-	X	X	-	-	-	-	-	
Potassium Iodide	White Solid	1	-	-	1	1	-	-	1	-	1	1	-	-	1	-	-	-	-	2	
Potassium Nitrate	Colorless to white Solid	1	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	
Potassium Permanganate	Dark purple Crystal	1	1	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	
Potassium Persulfate	White Crystal	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	
Potassium Phosphate	Colorless to white Crystal	1	-	-	1	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	
Potassium Silicate, Other Than Dry	-	1	1	-	1	1	2	-	1	-	1	-	-	-	-	-	-	-	-	-	
Potassium Sulfate	White Crystal or Powder	1	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	
Potassium Sulfide	Red or yellow Crystal or Solid	1	1	-	1	1	-	-	1	1	1	2	-	-	-	-	-	-	-	-	
Potassium Sulfite	White Crystal or Powder	1	-	-	-	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-	
Potassium Thiosulfate	Colorless crystal	1	-	-	1	-	-	-	1	-	1	1	-	1	-	-	-	-	-	-	
Primatol A, S, P (Ag Spray)	Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Propane Gas	Colorless Gas	CONTACT DENVER PRODUCT APPLICATION														-	-	-	-	-	-
Propanediol	Colorless Liquid	1	1	-	1	1	-	-	X	1	1	2	-	-	-	-	-	-	-	-	
Propanol (Propyl Alcohol)	Colorless Liquid	1	1	1	1	-	-	-	-	1	1	-	1	1	2	-	-	-	-	-	
Propionic Acid	Colorless Oily Liquid	1	1	1	2	X	2	2	X	2	1	2	-	-	-	1	1	-	-	-	
Propyl Acetate	Colorless Liquid	1	1	1	-	-	-	-	-	X	-	2	-	-	-	-	-	-	-	-	
Propyl Alcohol (Propanol)	Colorless Liquid	1	1	1	1	-	-	-	-	1	1	-	1	1	2	-	-	-	-	-	
Propyl Aldehyde	White-water Liquid	1	-	-	-	X	-	X	-	2	X	X	-	-	-	-	-	-	-	-	
Propyl Chloride	Colorless Liquid	1	-	-	-	X	-	X	-	X	2	X	-	-	-	-	-	-	-	-	
Propylene	Colorless Gas	1	-	-	X	X	X	X	X	X	1	X	-	-	-	-	-	-	-	-	
Propylene Diamine	Colorless Liquid	1	-	-	-	2	-	2	-	2	-	X	-	-	-	-	-	-	-	-	
Propylene Dichloride (Dichloropropane)	Colorless Liquid	1	-	-	X	X	X	X	X	X	2	X	-	-	-	-	-	-	-	-	
Propylene Glycol	Liquid	1	1	-	1	1	1	1	1	1	1	1	1	2	1	-	-	-	-	-	
Propylene Oxide	Colorless Liquid	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	
Purina Insecticide	-	1	1	-	2	X	-	-	X	2	2	-	-	2	-	1	1	1	1	2	
Puropale RX Oils	Liquid	1	1	-	X	1	-	-	-	X	-	-	-	1	2	1	1	1	1	1	
Pydraul 10E, 29E-LT, 30E, 60, 65E, 115SE	Liquid	1	1	-	2	X	-	-	-	2	-	-	2	-	X	1	1	1	1	1	
Pydraul 135	Liquid	1	1	-	-	X	-	-	-	2	1	-	2	2	-	1	1	1	-	-	
Pydraul 150	Liquid	1	1	-	2	X	X	X	X	2	1	X	2	2	X	1	1	1	1	1	
Pydraul 280	Liquid	1	1	-	2	X	X	X	X	2	2	X	2	2	X	1	1	1	-	-	
Pydraul 312	Liquid	1	1	-	X	X	X	X	X	X	1	-	2	1	X	1	1	1	-	-	
Pydraul 50E	Liquid	1	1	-	2	-	-	-	-	2	2	-	2	1	X	-	-	-	-	-	
Pydraul 540	Liquid	1	1	-	X	X	X	X	X	X	1	X	2	X	X	1	1	1	-	-	
Pydraul 625	Liquid	1	1	-	2	X	X	X	X	2	1	X	2	2	X	1	1	1	-	-	
Pydraul A-200	Liquid	1	1	-	X	X	X	X	X	X	1	X	2	2	X	1	1	1	-	-	
Pydraul F-9	Liquid	1	2	-	2	X	X	X	X	2	1	X	2	2	-	1	1	1	-	-	
Pyrene (Carbon Tetrachloride)	Colorless Liquid	1	2	X	X	X	X	X	X	X	1	X	2	1	X	X	2	2	X	2	
Pyrethrum	Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	
Pyridine (50%)	-	1	2	-	-	-	-	-	X	-	X	X	-	X	-	1	1	1	1	-	
Pyrogard 160, 230, 630	Liquid	1	1	-	-	-	-	-	-	-	2	-	-	-	-	1	1	1	-	-	
Pyrogard 51, 53, 55	Liquid	1	1	-	2	X	-	-	-	2	-	-	-	-	-	1	1	1	-	-	

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers													Couplings / Adapters						
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
Pyrogard C, D	Liquid	1	1	-	X	1	-	-	-	X	-	-	1	2	1	1	1	1	1	-	-
Pyronal (Transformer Oil)	Liquid	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Q																					
Quenching Oil	Liquid	1	-	-	-	2	-	-	2	-	-	-	-	-	-	1	1	1	1	-	-
Quintolubric 822	Liquid	1	1	-	2	1	-	-	2	X	1	-	-	1	-	1	1	1	1	1	-
R																					
Ramrod (Ag Spray)	-	1	1	-	-	-	-	-	-	-	-	-	1	-	1	1	1	1	1	1	-
Rando Oils	Liquid	1	1	-	X	1	-	-	-	X	-	-	1	-	1	1	1	1	1	1	-
Rape Seed Oil	Brownish to yellow Liquid	1	1	-	2	-	-	-	2	-	-	X	-	2	-	1	1	1	1	1	-
Red Oil (Commercial Oleic Acid) (MIL-5606)	Liquid	1	2	2	2	2	X	X	2	2	2	X	2	1	2	2	2	1	1	2	1
Refined Wax (Petroleum)	-	1	1	-	-	1	X	X	2	-	1	-	1	-	1	1	1	-	1	-	-
Regal Oils R&O	Liquid	1	1	-	X	1	-	-	-	X	-	-	1	2	1	1	1	1	1	1	-
Richfield "A" Weed Killer	-	1	1	-	X	2	X	X	X	X	2	X	-	2	-	-	-	-	-	-	-
Road Paving Compound	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Road Tar	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubilene Oils	Liquid	1	1	-	X	1	-	-	-	X	-	-	1	2	-	-	-	-	-	-	-
S																					
Salicylic Acid	White Powder	1	1	1	2	X	2	2	-	2	2	-	-	1	1	-	1	1	2	-	-
Salt Water (Sea Water)	Liquid	1	1	-	1	2	2	X	2	1	1	2	-	1	1	2	1	1	-	2	-
Sauerkraut	-	1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
Sea Water	Colorless Liquid	1	1	-	1	2	2	X	2	1	1	2	-	1	1	2	1	1	-	2	-
Sevin	-	1	2	-	2	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Sewage	Sludge	1	1	1	1	2	2	X	2	-	-	2	1	1	2	X	1	1	2	1	-
Shampoo	Liquid	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shellac	Orange to colorless flake	1	-	X	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Shortening	-	1	-	-	X	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silicate of Soda	Brownish or yellow Liquid	1	1	-	1	1	-	1	1	1	1	1	-	-	-	-	-	-	-	-	-
Silicone Greases	Liquid	1	2	-	-	2	-	-	2	-	2	2	-	1	2	1	1	1	-	1	-
Silicone Oils	Liquid	1	2	-	-	2	-	-	2	-	2	2	-	1	2	1	1	1	-	1	-
Silver Cyanide	White Powder	1	1	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	1
Silver Nitrate	Colorless crystal	1	1	-	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	2	-
Skydrol 500A & 7000	Liquid	1	1	-	1	X	X	X	X	2	X	X	2	1	X	1	1	1	1	-	-
Soap Oil	Liquid	1	1	2	-	X	-	-	X	-	-	X	-	-	1	1	1	-	-	-	-
Soap Solutions	Liquid	1	1	1	1	1	X	X	2	1	1	1	1	1	1	1	1	1	1	1	-
Soap, Liquid	Liquid	1	1	-	1	1	2	2	1	2	1	1	-	2	2	1	1	1	-	-	-
Soda Ash (Sodium Carbonate)	Grayish Powder	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	X	2
Soda Water	Liquid	1	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
Sodium Acetate	Colorless crystal	1	1	-	2	X	2	2	X	2	X	X	1	1	1	1	1	1	1	1	-
Sodium Aluminate Solution	Colorless to cloudy Liquid	1	1	-	1	1	2	2	1	1	1	1	-	2	2	-	-	-	-	-	-
Sodium Benzoate	White Crystals or Powder	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
Sodium Bicarbonate	White Crystal or Powder	1	1	-	1	1	1	1	1	1	1	1	1	1	1	2	1	1	-	2	-
Sodium Bichromate Solution	Red to clear Liquid	1	1	-	1	2	2	2	2	1	1	2	-	2	2	-	-	-	-	-	-
Sodium Bisulfate (Niter Cake)	Colorless Crystals to White Lumps	1	1	-	1	1	1	1	1	1	1	1	1	1	1	X	1	1	X	X	-
Sodium Bisulfite	White Crystals or Powder	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-
Sodium Borate (Borax)	White Crystals	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	-	2
Sodium Carbonate (Soda Ash)	Grayish Powder	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	X	2
Sodium Chlorate	Colorless Crystals	1	-	-	1	1	1	2	2	1	1	-	1	1	-	-	-	-	-	-	1
Sodium Chloride	Colorless to white Crystals	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	X	X
Sodium Chlorite Solution	Colorless to cloudy Liquid	2	-	-	X	X	2	2	X	2	X	2	-	X	2	-	-	-	-	-	-
Sodium Chromate	Yellow, translucent Crystals	1	-	-	-	1	2	2	1	2	1	X	-	2	2	-	-	-	-	-	-
Sodium Cyanide	In Water	1	1	-	1	1	1	1	1	1	1	1	1	1	1	2	1	1	X	X	-
Sodium Cyanide	White Crystalline Powder	1	1	-	1	1	1	1	1	1	1	1	1	1	1	2	1	1	X	X	-

CHEMICAL RESISTANCE TABLE

THE WORLD OF HOSE

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers													Couplings / Adapters						
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
Sodium Dichromate	Red to red-orange Crystals	1	-	-	1	1	2	2	2	1	1	2	1	-	1	-	-	-	-	-	1
Sodium Ferricyanide	Ruby-red Crystals	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Sodium Ferrocyanide	Yellow, transparent Crystals	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Sodium Fluoride (70%)	White Liquid	1	1	1	2	-	2	2	-	2	-	-	-	-	1	-	-	2	-	-	-
Sodium Hydrate	White Solid	1	2	-	1	2	2	2	2	2	2	2	-	2	2	-	-	-	-	-	-
Sodium Hydrochlorite	Pale greenish Liquid	1	2	-	2	X	2	X	X	2	1	1	-	2	2	-	-	-	-	-	-
Sodium Hydrosulfide	Colorless needles	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Sodium Hydrosulfite	Lemon colored Powder or flake	1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
Sodium Hydroxide (10%)	Colorless Liquid	1	1	1	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
Sodium Hydroxide (40%)	Colorless Liquid	1	1	1	2	2	1	1	1	2	1	1	1	X	-	2	1	1	X	X	-
Sodium Hydroxide (50% Under 212°F (100°C))	Colorless Liquid	1	1	2	2	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-
Sodium Hydroxide (50%, Under 115°F (44°C))	Colorless Liquid	1	1	2	2	X	1	1	2	1	X	1	1	X	-	2	2	2	X	X	-
Sodium Hydroxide (50%, Under 180°F (82°C))	Colorless Liquid	1	1	2	2	X	X	X	2	2	X	2	1	X	-	X	2	2	X	X	-
Sodium Hydroxide (60%)	White Liquid	1	2	1	2	X	2	2	2	2	X	2	1	X	-	X	2	2	X	X	-
Sodium Hydroxide 25%	Colorless Liquid	1	1	1	2	2	1	1	1	2	1	1	X	-	X	X	2	X	X	-	-
Sodium Hypochlorite (20%)	White Liquid	1	2	1	1	X	X	X	X	-	X	1	1	2	1	X	X	2	X	X	-
Sodium Hypochlorite (5%)	White Liquid	1	2	1	1	X	X	X	-	-	1	1	1	1	1	X	X	2	X	X	-
Sodium Hyposulfate	Large, transparent Crystals	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Sodium Metallic	Silver Solid	2	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium Metaphosphate	Colorless Crystals to white Powder	1	1	-	2	2	2	2	2	2	2	2	1	1	1	X	1	1	1	X	-
Sodium Nitrate	Colorless crystal	1	1	-	2	X	X	X	X	2	-	2	1	1	1	1	2	2	2	2	-
Sodium Perborate	White, amorphous Powder	1	1	-	2	X	X	X	X	2	-	X	-	2	-	X	1	1	1	X	-
Sodium Peroxide	Yellowish white Powder	1	1	2	-	-	-	-	-	1	1	1	2	X	1	X	1	1	1	X	-
Sodium Phosphate	Colorless Crystals to white Powder	1	1	-	2	-	2	2	X	2	-	-	1	1	1	-	1	1	X	X	-
Sodium Silicate	Lumps of greenish glass	1	1	-	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	1
Sodium Sulfate	White Crystals or Powder	1	1	-	1	1	2	2	1	1	1	1	1	1	1	-	-	-	-	-	1
Sodium Sulfate Decahydrate (Glauber's Salt)	Crystals or Powder	1	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Sodium Sulfhydrate	Colorless to cloudy Liquid	1	2	-	1	2	X	2	2	2	2	2	-	2	2	-	-	-	-	-	-
Sodium Sulfide	Yellow/Brick red flakes or Crystals	1	1	-	1	1	2	2	1	1	1	1	1	1	1	-	-	-	-	-	1
Sodium Sulfide Solution	Colorless to cloudy Liquid	1	2	-	1	2	-	2	2	1	2	2	-	X	-	-	-	-	-	-	1
Sodium Sulfite	White Crystals or Powder	1	1	-	2	2	2	2	2	2	-	2	1	1	1	1	1	1	-	-	-
Sodium Sulfite Solution	Colorless to cloudy Liquid	1	2	-	1	2	-	2	2	1	2	2	-	X	-	1	1	1	-	-	-
Sodium Sulphhydrate	Colorless needles	1	2	-	1	2	-	-	2	1	2	2	-	2	2	-	-	-	-	-	-
Sodium Thiocyanate Solution	Colorless to cloudy Liquid	1	1	-	1	2	-	1	2	1	2	-	-	-	-	-	-	-	-	-	-
Sodium Thiosulfate (HPO)	White Powder	1	1	-	-	1	1	1	1	1	-	1	1	1	1	X	1	1	2	X	-
Sodium Tripolyphosphate (STPP)	White Powder	1	2	-	-	-	-	-	2	X	-	-	-	-	-	-	1	1	X	X	-
Solnus Oils	Liquid	1	1	-	X	1	-	-	-	X	-	-	-	1	1	1	1	1	1	1	-
Sour Crude Oil	Liquid	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-
Soybean Oil	Pale yellow oil	1	1	1	X	2	X	X	2	2	1	2	-	1	2	1	1	1	-	-	-
Spent Acid	Liquid	1	2	2	X	X	X	X	X	X	1	2	X	X	X	-	1	1	-	-	-
Stannic Chloride	Colorless, fuming Liquid	1	1	-	-	2	2	2	X	X	1	X	1	X	2	X	-	-	-	-	X
Stannic Sulfide	Yellow to brown Powder	1	2	-	-	2	-	2	-	2	-	2	-	-	-	-	-	-	-	-	-
Stannous Chloride (Under 150°F)	White Mass	1	1	-	2	1	1	1	1	1	1	1	1	X	1	-	-	-	-	-	1
Starch	White amorphous Powder	1	1	-	1	2	1	1	2	-	1	1	-	1	1	-	-	-	-	-	-
Starch gum (Dextrin)	Yellow or White Powder	1	1	-	1	1	-	-	1	X	1	-	-	1	1	-	1	1	-	-	1
Stauffer Jet 1	Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	-
Stauffer Jet 2	Liquid	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	-
Steam	Gas	USE STEAM HOSE ONLY																			
Stearic Acid (Octadecanoic Acid)	Colorless Waxy Solid	1	1	1	2	2	2	2	2	2	1	2	1	1	1	X	2	1	X	X	-
Stearin	Colorless crystal or Powder	1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
Stoddard Solvent	Clear petroleum distillate	1	2	-	X	2	X	X	-	X	1	-	1	1	2	2	1	1	-	1	-
STPP (Sodium Tripolyphosphate)	White Powder	1	2	-	2	-	2	2	-	2	X	-	-	-	-	-	2	1	X	X	-

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers														Couplings / Adapters					
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
Straight Synthetic Oils	Liquid	1	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	-	-	-	-
Styrene (Monomer)	Colorless Oily Liquid	1	2	-	X	X	X	X	-	X	2	-	2	2	-	2	X	2	X	2	-
Sucrose Solutions	Liquid	1	1	-	-	1	1	1	1	1	-	1	-	-	-	1	1	1	-	-	-
Sugar, Liquid, Blended	Liquid	1	1	-	1	1	1	1	1	1	1	2	-	-	-	-	-	-	-	-	-
Sugar, Syrup	Liquid	1	1	-	1	1	1	1	1	1	1	2	-	-	-	-	-	-	-	-	-
Sulfamic Acid	In Water	1	1	1	2	X	X	X	-	2	1	2	1	X	X	-	-	-	-	-	-
Sulfamic Acid 10% Under 170°F (77°C)	Colorless Liquid	1	X	-	-	-	X	X	-	-	2	2	1	-	-	-	-	-	-	-	-
Sulfate Liquors Under 150°F (66°C)	-	1	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	1
Sulfur (Under 200°F (93°C))	Yellow Crystals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfur Chloride	Yellow Oily Liquid	1	2	-	X	X	X	X	X	X	1	2	-	2	2	X	X	2	-	X	-
Sulfur Dioxide	Colorless Gas or Liquid	-	-	-	2	X	X	-	-	2	X	-	-	-	-	-	-	-	-	-	-
Sulfur Dioxide (Dry)	-	1	2	-	2	X	X	X	X	X	1	2	-	X	1	2	1	1	1	1	-
Sulfur Dioxide (Liquid)	Colorless Liquid	1	-	1	1	X	X	X	2	2	X	2	-	-	X	-	-	-	-	-	-
Sulfur Dioxide (Moist)	-	1	-	1	1	X	X	X	2	1	2	2	-	-	X	-	-	-	-	-	-
Sulfur Hexafluoride (Gas)	Colorless Gas	1	1	-	1	2	2	2	1	1	2	2	-	1	2	-	-	-	-	-	-
Sulfur Trioxide (Dry)	Solid	1	2	-	2	X	X	X	X	X	1	X	X	-	1	2	2	2	2	-	-
Sulfuric Acid (10%)	Colorless Water Solution	1	1	1	1	2	1	1	1	1	1	1	1	X	-	-	X	X	2	X	X
Sulfuric Acid (100%)	Colorless Liquid	1	X	X	X	X	X	X	X	X	2	X	X	-	-	2	X	2	X	X	-
Sulfuric Acid (30%)	Colorless Water Solution	1	1	1	1	2	2	2	1	1	1	1	1	X	-	X	X	2	X	X	-
Sulfuric Acid (50%)	Colorless Water Solution	1	1	1	1	X	X	X	2	1	1	1	1	X	-	X	X	2	X	X	-
Sulfuric Acid (60%) (48.5 deg Baume)	Colorless Liquid	1	1	1	1	X	X	X	X	1	1	1	1	X	-	X	X	2	X	X	-
Sulfuric Acid (75%)	Colorless to Brown Solution	1	1	1	2	X	X	X	X	2	1	2	2	X	-	X	X	2	X	X	-
Sulfuric Acid (88%) (64.7 deg Baume)	Colorless Liquid	1	2	1	X	X	X	X	X	X	1	X	X	X	-	X	X	2	X	X	-
Sulfuric Acid (93%)	Colorless to Brown Oily Liquid	1	X	1	X	X	X	X	X	X	1	X	X	X	-	X	X	2	X	X	-
Sulfuric Acid (96%)	Colorless Liquid	1	X	1	X	X	X	X	X	X	1	X	X	X	-	X	X	2	X	X	-
Sulfuric Acid (98%)	Colorless to Brown Oily Liquid	1	X	1	X	X	X	X	X	X	1	X	X	X	-	X	X	2	X	X	-
Sulfuric Acid, Fuming (Oleum)	Colorless to Dark Brown Oily Liquid	1	X	X	X	X	X	X	X	X	1	X	X	X	-	-	1	-	-	X	-
Sulfurous Acid (10%)	Colorless Liquid	1	1	1	1	X	X	X	-	2	1	1	1	-	1	-	X	2	1	X	X
Sulfurous Acid (75%)	Colorless Liquid	1	1	1	1	X	X	X	X	X	1	1	1	X	-	X	X	2	X	X	-
Sun R&O Oils	Liquid	1	1	-	X	1	-	-	-	X	1	-	-	1	2	1	1	1	1	1	-
Suntac HP Oils	Liquid	1	1	-	X	1	-	-	-	X	1	-	-	1	2	1	1	1	1	1	-
Suntac WR Oils	Liquid	1	1	-	X	1	-	-	-	X	1	-	-	1	2	1	1	1	1	1	-
Sunvis Oils 700, 800, 900	Liquid	1	1	-	X	1	-	-	-	X	1	-	-	1	2	1	1	1	1	1	-
Synthetic Oil (Citgo)	Liquid	1	1	-	X	-	-	-	-	X	-	-	-	1	2	1	1	1	1	1	-
Syrup	Viscous Liquid	1	1	-	-	-	-	1	1	2	-	1	-	-	-	-	1	1	1	1	-
T																					
Tall Oil	Black liquid	1	2	-	X	1	X	X	X	X	2	X	-	-	X	-	X	2	-	-	-
Tall Oil(Under 150°F (66°C))	Liquid	1	1	-	X	2	X	X	2	X	1	X	-	-	-	-	X	2	-	-	-
Tallow	White to clear Solid or Liquid	1	1	-	2	2	-	-	2	2	-	-	-	1	2	2	2	2	1	2	-
Tannic Acid	Faint Yellow Powder	1	1	1	1	X	2	2	2	1	1	2	1	1	1	2	1	1	2	X	-
Tannic Acid (10%)	Yellow Liquid	1	1	-	-	X	2	2	2	X	1	2	1	1	1	2	1	1	2	X	-
Tar (Bituminous) Under 100°F (38°C)	-	1	1	2	X	2	X	X	2	X	1	-	X	-	-	1	1	1	1	1	2
Tar Oil	Yellow to dark brown Liquid	1	-	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	-	-	-
Tartaric Acid	White Crystalline Powder	1	1	1	1	2	2	2	2	1	1	1	1	-	-	-	2	2	2	-	-
TEA (Triethanolamine)	Colorless Viscous Liquid	1	1	-	1	2	2	2	2	2	X	2	1	-	2	-	1	1	-	1	-
TEL (Tetraethyl Lead)	Colorless Oily Liquid	1	2	-	X	2	X	X	X	X	1	X	-	2	1	-	-	-	-	-	-
Tellus Oils	Liquid	1	1	-	X	1	-	-	-	X	1	-	-	1	2	1	1	1	1	1	-
Tenol Oils	Liquid	1	1	-	X	1	-	-	-	X	1	-	-	1	2	1	1	1	1	1	-
Tergitol (Ethoxylates and Ethoxysulfates of Alcohol)	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	1	-	2
Terpineol	Colorless Liquid or Crystal	1	1	-	-	-	X	X	-	X	-	2	1	2	2	-	-	-	-	-	-
Tertiary Butyl Alcohol	Colorless Liquid or Crystal	1	2	-	-	2	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Tetrachlorobenzene	White Crystal	1	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-

CHEMICAL RESISTANCE TABLE

THE WORLD OF HOSE

Chemical	Form (at room temperature unless otherwise stated)	Gates Hose / Polymers														Couplings / Adapters					
		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Polypro
Tetrachloroethane (Acetylene Tetrachloride)	Colorless Liquid	1	X	X	X	-	X	X	-	X	1	X	X	1	X	-	-	-	-	-	-
Tetrachloroethylene	Colorless Liquid	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Tetrachloromethane	Colorless Liquid	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Tetrachloronaphthalene	Oily Liquid to Crystalline Solid	1	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-
Tetradecanol	White Solid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetraethyl Lead (TEL)	Colorless Oily Liquid	1	2	-	X	2	X	X	X	X	1	X	-	2	1	-	-	-	-	-	-
Tetraethylene Glycol	Colorless Liquid	1	2	-	-	2	-	2	-	1	2	2	-	-	-	-	-	-	-	-	-
Tetrahydrofuran (THF)	Colorless Liquid	1	X	-	2	X	X	X	X	2	1	X	-	1	X	2	-	-	-	-	X
Tetrahydroxycyclopentadiene (JP 10) ²	-	-	-	-	X	X	X	X	X	X	1	X	-	1	X	-	-	-	-	-	-
Tetralin	Colorless Liquid	1	-	-	X	X	X	X	X	X	1	X	-	2	-	-	-	-	-	-	X
Theobromo Oil (Cocoa Butter)	Liquid above 95°F (35°C)	1	1	2	-	2	X	X	2	-	-	-	-	-	1	1	1	-	-	-	-
THF (Tetrahydrofuran)	Colorless Liquid	1	X	-	2	X	X	X	X	2	1	X	-	1	X	2	-	-	-	-	X
Thiopen	-	1	-	-	X	X	X	X	X	2	2	-	-	-	-	-	-	-	-	-	-
Tin Tetrachloride	Colorless Liquid	1	-	-	-	2	-	2	X	-	-	2	-	-	-	-	-	-	-	-	-
Titanium Tetrachloride	Colorless Liquid	1	-	-	X	X	-	-	X	X	2	-	-	-	-	1	2	2	X	X	-
Toluene (Toluol) (Methyl Benzene)	Colorless Liquid	1	2	2	X	X	X	X	X	X	1	X	X	1	X	1	1	1	1	1	-
Toluene Diisocyanate (Hylene)	Yellow Liquid	1	-	-	2	X	X	X	X	2	X	X	-	-	-	-	-	-	-	-	-
Toluene Diisocyanate (Isocyanate)	Water White to Yellow Liquid	1	2	-	X	X	X	X	X	X	1	-	-	-	-	1	1	1	-	-	-
Toluidine	Yellow Liquid or White Crystal	1	-	-	-	X	-	X	-	X	2	X	-	-	-	-	-	-	-	-	-
Toluol (Toluene)	Colorless Liquid	1	2	2	X	X	X	X	X	X	1	X	X	1	X	1	1	1	1	1	-
Transformer Oil (Askarel Types)1	Liquid	1	2	2	X	X	X	X	X	X	1	X	1	1	X	1	1	1	-	1	2
Transformer Oil (Petroleum Type)1	Liquid	1	1	-	X	1	X	X	2	X	1	X	1	1	2	1	1	1	1	1	-
Transmission Fluid (Type A)	Liquid	1	1	-	X	1	X	X	2	X	1	-	1	2	-	1	1	1	-	1	-
Tributoxyethyl Phosphate	Yellow Liquid	1	1	X	2	X	X	X	-	2	-	X	X	2	-	1	-	-	X	-	-
Tributyl Phosphate	Colorless Liquid	1	1	X	X	X	X	X	X	X	1	X	2	-	-	1	-	-	X	-	-
Tricalcium Aluminate (Calcium Aluminate)	Crystals or Powder	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorobenzene	White Crystal or colorless Liquid	1	2	-	-	X	X	X	X	2	X	-	-	-	-	-	-	-	-	-	-
Trichloroethane 1,1,1 (Methyl Chloroform)	Colorless Liquid	1	X	-	X	X	X	X	X	X	1	X	X	X	-	-	-	-	-	-	-
Trichloroethylene	Colorless Liquid	1	1	X	X	X	X	X	X	X	1	X	2	2	-	X	-	1	X	1	-
Trichloropropane	Colorless Liquid	1	-	-	-	2	-	X	2	X	1	X	-	-	-	-	-	-	-	-	-
Tricresyl Phosphate	Colorless Liquid	1	-	X	1	X	X	X	X	2	1	X	1	1	-	1	-	2	X	-	-
Triethanolamine (TEA)	Colorless Viscous Liquid	1	1	-	1	2	2	2	2	2	X	2	1	-	2	-	1	1	-	1	-
Triethylamine	Colorless Liquid	1	-	-	2	2	X	X	-	X	2	-	-	-	-	-	-	-	-	-	-
Triethylene Glycol	Colorless Liquid	1	-	-	-	2	-	2	-	2	2	2	-	-	-	-	-	-	-	-	-
Trihydroxybenzoic Acid (Gallic Acid)	In Alcohol or Glycerol	1	1	1	1	X	2	2	X	2	1	-	1	X	X	X	1	1	-	-	1
Trimethyl Phosphate	Colorless Liquid	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trimethylbenzene (Mesitylene)	Liquid	1	-	-	X	X	X	X	X	X	1	-	-	1	X	-	-	-	-	-	-
Trinitrophenol (Picric Acid)	Yellow Crystals	1	2	2	2	2	2	2	2	2	1	2	-	X	1	X	1	1	X	X	1
Trioctyl Phosphate	Liquid	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Triphenyl Phosphate	Colorless Powder	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tripolyphosphate (STPP), (Sodium)	White Powder	1	2	-	2	-	2	2	-	2	X	-	-	-	-	2	1	X	X	-	-
Trisodium Phosphate (TSP)	Colorless crystal	1	-	-	1	2	2	X	2	2	1	X	-	-	-	-	-	-	-	-	-
Tung Oil	Yellow drying oil	1	2	-	X	2	X	X	X	X	1	2	-	-	2	1	1	1	1	1	-
Turpentine	Liquid oil	1	X	1	X	2	X	X	X	X	1	X	2	1	1	-	1	1	1	2	-
U																					
Ucon Hydrolube Types 150CP, 200CP	Liquid	1	1	-	1	1	-	-	-	1	-	-	-	1	2	1	1	1	1	1	-
Ucon Hydrolube Types 275CP, 300CP, 550CP	Liquid	1	-	-	-	1	X	X	-	X	1	-	-	2	2	-	-	-	-	-	-
Ucon M1	Liquid	1	1	-	1	1	-	-	-	1	-	-	-	-	1	2	1	1	1	1	1
Undecanol (Undecyl Alcohol)	Colorless Liquid	1	-	-	-	1	-	2	-	-	2	2	-	-	-	-	-	-	-	-	-
Undecyl Alcohol (Undecanol)	Colorless Liquid	1	-	-	-	1	-	2	-	-	2	2	-	-	-	-	-	-	-	-	-
Union Hydraulic Tractor Fluid	Brown Liquid	1	1	-	X	1	-	-	-	X	-	-	-	1	2	1	1	1	1	1	-
Urea Solution (100%)	Liquid	1	1	-	-	2	1	1	1	2	-	1	1	1	2	1	1	1	-	-	-

1 = Preferred - Constant Contact 2 = Acceptable - Intermittent Contact X = Not Recommended - = No Data NOTE: Ratings are for the affect on the polymer only!		Gates Hose / Polymers													Couplings / Adapters							
		Form (at room temperature unless otherwise stated)		Teflon®	XLPE	UHMWPE	EPDM	NBR	SBR	NR	CR	Butyl	Fluorocarbon	Hypalon®	CPE	Nylon	PVC	Iron/Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass
V																						
Varnish	-	1	2	-	X	X	X	X	X	X	2	X	-	1	-	2	1	1	-	2	-	-
Vegetable Oils	Liquids	1	-	1	2	-	X	X	2	X	-	1	1	1	2	1	1	1	1	-	-	-
Versilube F-50, F-44	Liquid	1	-	-	2	2	2	2	2	2	1	2	-	1	2	1	1	1	1	1	-	-
Vinegar	Brownish to colorless Liquid	1	1	-	-	2	2	2	2	2	1	X	2	-	1	X	2	1	X	X	-	-
Vinyl Acetate	Colorless Liquid	1	1	X	X	X	X	X	X	2	X	X	1	-	-	-	1	2	1	2	-	-
Vinyl Chloride (Monomer)	-	1	2	-	X	X	X	X	X	2	X	X	-	X	2	1	1	1	1	X	-	-
Vinyl Fluoride	Colorless Gas	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl Trichloride (Trichloroethane)	Colorless Liquid	1	-	-	X	X	X	X	X	X	1	X	X	X	X	-	-	-	-	-	-	-
Vitrea Oils	Liquid	1	1	-	X	1	-	-	-	X	-	-	-	1	2	1	1	1	-	-	-	-
VM&P Naptha (Mineral Spirits)	Colorless Liquid	1	1	-	X	1	X	X	-	X	1	X	-	1	-	1	1	1	2	1	-	-
W																						
Waste Paint	Liquid to semi-Solid paste	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water	Liquid	1	1	1	1	1	1	1	1	1	-	1	1	1	1	2	1	1	1	1	-	-
Water (Brine)	Liquid	1	1	-	1	2	1	1	2	1	1	1	-	1	1	-	-	-	-	-	-	1
Water (Deionized)	Liquid	1	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Water (Distilled)	Liquid	1	1	1	1	1	1	1	2	1	-	1	-	1	1	-	-	-	-	-	-	1
Water (Potable)	Liquid	USE AQUARIUS HOSE ONLY											1	-	-	-	-	-	-	1		
Water Glycols	Liquid	1	1	1	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-
Water in Oil Emulsions	Liquid	1	1	1	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-
White & Bagley No. 2190 Cutting Oil	Liquid	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wines	Liquid	1	2	-	X	X	X	X	X	X	1	X	1	1	-	2	2	2	1	-	-	-
Wood Oil	Liquid	1	1	-	X	1	X	X	2	X	1	2	1	1	1	-	-	-	-	-	-	-
X																						
Xylene (Dimethylbenzene)	Colorless Liquid	1	2	X	X	X	X	X	X	X	1	X	X	X	X	-	-	-	-	-	-	-
Xylenol (Dimethylphenol)	White solid, liquid @ 68°F [20°C]	1	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Z																						
Zeric	-	1	1	-	X	1	-	-	-	X	-	-	-	2	2	-	-	-	-	-	-	-
Zinc Acetate	White Crystal	1	1	-	2	X	2	2	X	2	X	X	-	X	1	1	1	1	1	1	-	-
Zinc Chloride Solutions	Colorless to cloudy Liquid	1	1	-	-	1	2	2	1	2	1	1	1	1	2	X	2	1	X	X	-	-
Zinc Chromate	Yellow Solid	1	1	-	-	-	-	-	-	-	1	1	-	-	-	-	1	1	-	-	-	-
Zinc Hydrate	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Zinc Oxide	White or gray Powder	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Zinc Sulfate Solutions	Colorless to cloudy Liquid	1	1	-	2	2	X	X	2	2	-	2	1	2	2	X	2	1	X	X	-	-