Liquid Tight Systems Wire Management Products

Maximum Protection for Abusive Environments.

TAL I



HUBBELL

# Liquidtight Systems Non-metallic Conduit and Tubing Poly Tuff<sup>®</sup> I and Poly Tuff<sup>®</sup> II

## PolyTuff I

Rigid PVC core bonded to flexible PVC jacket.

All non-metallic construction ends metal fatigue and separation problems.

UL Listed and CSA Certified.

Cuts cleanly with a knife or PVC cutter so there are no jagged edges.

# PolyTuff II

PVC core with corrugated walls bonded to PVC jacket.

Handles twists, turns, bends, switchbacks and straightaways with ease.

All non-metallic construction ends fatigue and separation problems.

Can be cut with a knife or PVC cutters.

UL Recognized and CSA Certified.

## **Flexibility and Corrosion Resistance**

Hubbell Polytuff I Conduit and Polytuff II Tubing are entirely non-metallic, providing superior flexibility and outstanding corrosion resistance. Polytuff conduit and tubing comes in sizes ranging from 1/4" to 2" diameter. Polytuff is made from PVC which gives you the extra flexibility for tight turns, nonconductivity, corrosion resistance and ease of installation not found in metallic liquidtight conduit.



## PolyTuff I Conduit

Trade Size	Catalog		Conduit I	D/OD	Bend Radius		
(metric designator)	Numbers	Feet (m)	Inches	(mm)	Inches	(mm)	
<sup>3</sup> /8" (12)	G1038	100 (30.5)	.49"/.70"	(12.6/17.8)	2.00"	(50.8)	
1/2" (16)	G1050	100 (30.5)	.63"/.83"	(16.1/21.1)	3.00"	(76.2)	
3/4" (21)	G1075	100 (30.5)	.83"/1.04"	(21.1/26.4)	4.00"	(101.6)	
1" (27)	G1100	100 (30.5)	1.05"/1.30"	(26.0/33.1)	5.00"	(217.0)	
11/4" (35)	G1125	100 (30.5)	1.40"/1.65"	(35.4/41.8)	6.30"	(158.8)	
11/2" (41)	G1150	50 (15.2)	1.59"/1.88"	(40.3/47.8)	7.50"	(190.5)	
2" (53)	G1200	50 (15.2)	2.03"/2.36"	(51.6/59.9)	10.00"	(254.0)	



## PolyTuff I Conduit

<b>Operating Temper</b>	rature Range
Wet environment	0°F to +140°F (-18°C to +60°C).
Oil environment	0°F to +158°F (-18°C to +70°C).
Dry environment	0°F to +176°F (-18°C to +80°C).
Certifications	
UL Listed	UL Standard 1660.
	Sunlight resistant approved for outdoor
	use, direct burial.
CSA Certified	Meets requirements of NEC Article 351-B.
Voltage Rating	
Maximum	600V.
Material	
Conduit	Co-extruded rigid and flexible PVC.

## PolyTuff II Tubing

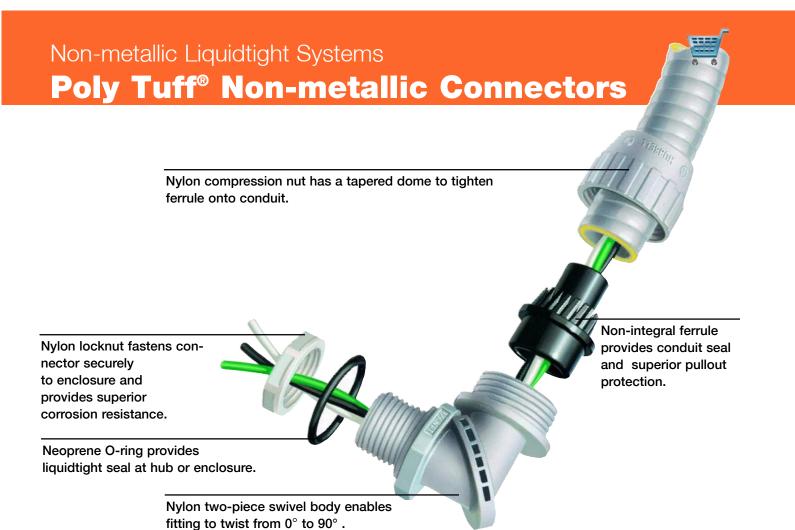
Trade Size	Catalog		Conduit ID	/OD	Bend Radius		
(metric designator)	Numbers	Feet (m)	Inches	(mm)	Inches	(mm)	
1/4" (10)	B2025	100 (30.5)	.36"/.57"	(9.3/14.5)	1.50"	(38.1)	
<sup>3</sup> /8" (12)	<b>B2038</b>	100 (30.5)	.49"/.70"	(12.6/17.8)	2.00"	(50.8)	
1/2" (16)	B2050	100 (30.5)	.63"/.83"	(16.1/21.1)	2.00"	(50.8)	
3/4" (21)	B2075	100 (30.5)	.83"/1.04"	(21.1/26.4)	3.00"	(76.2)	
1" (27)	B2100	100 (30.5)	1.05"/1.30"	(26.0/33.1)	3.00"	(76.2)	
11/4" (35)	B2125	100 (30.5)	1.40"/1.65"	(35.4/41.8)	5.00"	(127.0)	
11/2" (41)	B2150	50 (15.2)	1.59"/1.88"	(40.3/47.8)	5.00"	(127.0)	
2" (53)	B2200	50 (15.2)	2.03"/2.36"	(51.6/59.9)	5.00"	(127.0)	



## PolyTuff II Tubing

Operating Temperature Range									
Operating Environment	0°F to +140°F (-18°C to +60°C).								
Certifications									
UL Recognized CSA Certified									
Voltage Rating									
Maximum	Same as wire insulation rating.								
Material									
Tubing	Co-extruded rigid and flexible PVC.								





## Straight and SwivelLock® Connectors

Hubbell non-metallic liquidtight connectors are made from nylon and range in size from ¼" to 2". The nylon connectors are completely nonconductive, corrosion resistant and easier to install than metallic liquidtight fittings. The patented SwivelLock® design eliminates the need for separate straight, 45°, and 90° fittings by providing a full range in one device. Non-metallic connectors have a unique design which allows Hubbell to claim UL 50 ratings of 3R, 4X, 12 and 13.

Polytuff Fittings	
Operating Temperature*	
Nylon (Body, Nut, Gripping Ring and Locknut)	-40°F to +225°F (-40°C to +107°C).
Neoprene (Sealing Ring)	-30°F to +240°F (-34°C to +116°C).
Flammability	
ire Gas Toxicity Product Testing	Nylon PolyTuff Fittings have a
	UL 94V–2 rating.
Certifications	
UL Listed	UL50 Type 4X, 12 and 13
CSA Certified	PolyTuff I Fittings, Poly Tuff II Fittings.

\*Due to the limiting factors of nylon and neoprene, PolyTuff Fittings will continuously perform in the range -30°F to +225°F (-34°C to +107°C).



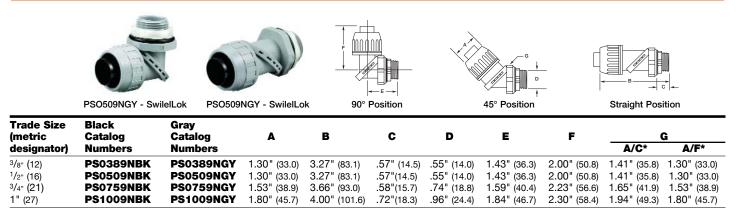
F E



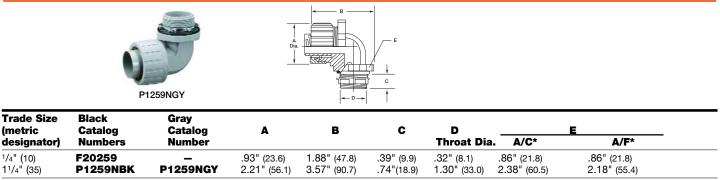
#### **Straight Liquidtight Connectors**

	P125NGY		075NGYA	Sizes: <sup>3</sup> / <sub>8</sub> ", 1	r/2", 3/4", 1"	A Dia. Sizes: 1/4	, 1 <sup>1</sup> /4", 1 <sup>1</sup> /2", 2"	
Trade Size (metric designator)	Black Catalog Numbers	Gray Catalog Numbers	Α	В	С	D Throat Dia	a. A/C*	E A/F*
1/4" (10)	F5025	_	.93" (23.6)	1.45" (36.8)	.39" (9.9)	.32" (8.1)	.86" (21.8)	.86" (21.8)
<sup>3</sup> /8" (12)	P038NBK	P038NGY	1.14" (29.0)	1.63" (41.4)	.57"(14.5)	.42" (10.7)	1.41" (35.8)	1.30" (33.0)
<sup>1</sup> /2" (16)	P050NBKA	P050NGYA	1.30" (33.0)	2.14" (54.4)	.57"(14.5)	.55" (14.0)	1.41" (35.8)	1.30" (33.0)
3/4" (21)	P075NBKA	P075NGYA	1.53" (38.9)	2.22" (56.4)	.58"(14.7)	.74" (18.8)	1.85" (47.0)	1.53" (38.9)
1" (27)	P100NBKA	P100NGYA	1.80" (45.7)	2.32" (58.9)	.72"(18.3)	.96" (24.4)	1.94" (49.3)	1.80"(45.7)
1 <sup>1</sup> /4" (35)	P125NBK	P125NGY	2.20" (55.9)	2.15" (54.6)	.74"(18.8)	1.30" (33.0)	2.38" (60.5)	2.18" (55.4)
1 <sup>1</sup> /2" (41)	P150NBK	P150NGY	2.49" (63.2)	2.35" (59.7)	.76"(19.3)	1.46" (37.1)	2.63" (66.8)	2.43" (61.7)
2" (53)	P200NBK	P200NGY	3.05" (77.4)	2.51" (63.6)	.79"(20.1)	1.90" (48.3)	3.13" (79.5)	2.93" (74.4)

#### SwivelLok® Multi-Position with Male Non-metallic Liquidtight Fittings



#### 90° with Male Non-metallic Liquidtight Fittings

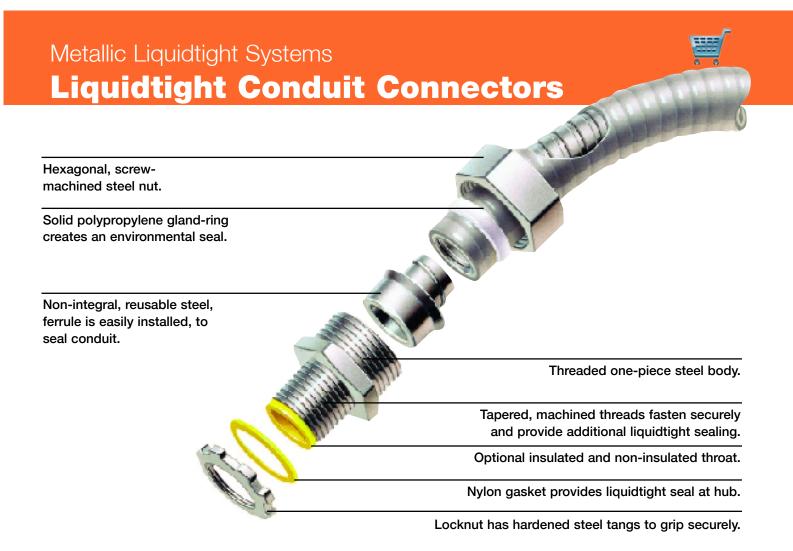


#### SwivelLok Flexible Conduit Kit

Trade Size (metric designator)	Fitting and Conduit	Catalog Numbers	
1/2" (16)	2 PS0509NGY, 6' G1050	PS05GYKIT	
<sup>3</sup> /4" (21)	2 PS0759NGY, 6' G1075	PS07GYKIT	
* A/C = Acros	s Corners A/F = Across Flats		PS05GYKIT



Visit Hubbell Electronic Catalog at www.hubbellcatalog.com/wiring for complete specification data.



## **Insulated and Non-Insulated Conduit Connectors**

Hubbell offers a broad line of metallic liquidtight fittings for use with metallic liquidtight conduits and Polytuff I. Hubbell offers trade sizes from 3/8" to 4" in straight, 45°, and 90° body designs. Most connectors are available with either insulated or non-insulated throats. Liquidtight fittings are precision manufactured to exacting standards assuring ease of use and reliability. Straight body ½" and ¾" sizes are listed for UL Type 3R, 4, 12 and 13 environmental ratings.

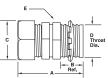
Operating Temperature**	
Steel/Malleable Iron (Nut, Body, Ferrule)	-60°F to +1000°F (-51°C to +538°C).
Nylon (Gland Ring)	-40°F to +225°F (-40°C to +107°C).
Hazardous Locations	NEC Reference
Class I, Div. 2	501–4b
Class II, Div. 1	502-4a2
Class II, Div. 2	502-4b2
Class III, Div. 1	503–3a2
Class III, Div. 2	503–3b
Certifications	
UL Listed	
CSA Certified	

\*\*Due to the limiting factors of nylon, metallic liquidtight flexible conduit fittings will continuously perform in the range of -40°F to +225°F (-40°C to +107°C).



#### **Straight Conduit Connector**



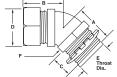


Straight with Male Hubbell Conduit Fitting H0501

Trade Size (metric	Insulated Catalog	Non-Insulated Catalog	Α	В	c	;	D	E	
designator)	Numbers	Numbers			A/C*	A/F*	Throat Dia.	A/C*	A/F*
3/8" (12)	H0381	H038	1.43" (36.3)	.59" (15.0)	1.20" (30.0)	1.06" (26.9)	.61" (15.5)	1.07" (27.2)	.93" (23.6)
<sup>1</sup> /2" (16)	H0501A	H050A	1.43" (36.3)	.59" (15.0)	1.34"(34.0)	1.19" (30.2)	.61" (15.5)	1.22" (31.0)	1.06" (26.9)
<sup>3</sup> /4" (21)	H0751A	H075A	1.56" (39.6)	.59" (15.0)	1.55" (39.0)	1.37" (34.8)	.84" (21.3)	1.43" (36.3)	1.25" (31.8)
1" (27)	H1001	H100	1.68" (42.7)	.66" (16.8)	1.95"(50.0)	1.69" (42.9)	1.06" (26.9)	1.73"(43.9)	1.56" (39.6)
1 <sup>1</sup> /4" (35)	H1251	H125	2.03" (51.6)	.63" (16.88)	2.39"(61.0)	2.06" (52.3)	1.37" (34.8)	2.36" (59.9)	2.08" (52.8)
1 <sup>1</sup> /2" (41)	H1501	H150	2.21" (56.1)	.63" (16.88)	2.72"(69.0)	2.38" (60.5)	1.53" (38.9)	2.79" (70.9)	2.48" (63.0)
2" (53)	H2001	H200	2.28" (57.9)	.69" (17.5)	3.08"(78.0)	2.87" (72.9)	2.06" (52.3)	3.32" (84.3)	2.90" (73.7)
21/2" (63)	H2501	_	3.56" (90.4)	1.06" (26.9)	3.92"(100.0)	3.62" (91.9	2.42" (61.5)	3.85" (97.8)	3.60" (91.4)
3" (78)	H3001	-	3.81" (96.8)	1.06" (26.9)	4.70"(119.0)	4.31" (109.5)	3.01" (76.5)	4.65" (118.1)	4.33" (110.0)
3 <sup>1</sup> /2 (91)	H3501	_	3.81" (96.8)	1.06" (26.9)	5.29"(134.0)	4.81" (122.2)	3.49" (88.6)	5.18" (131.6)	4.82" (122.4)
4" (103)	H4001	-	3.81" (96.8)	1.06" (26.9)	5.75" (146.0)	5.31" (134.9)	3.96" (100.6)	5.75" (146.1)	5.39" (136.9)

## **45° Liquidtight Connectors**





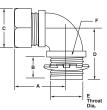
45° Angle with Male Hubbell Conduit Fitting H05041

Trade Size	Insulated	Non-Insulat	ed							
(metric	Catalog	Catalog	Α	В	С	D		E		=
designator) Numbers	Numbers	Numbers				A/C*	A/F*	Throat Dia.	A/C*	A/F*
<sup>3</sup> /8" (12)	H03841	H0384	1.19" (30.2)	1.28" (32.5)	.59"(15.0)	1.20" (30.5)	1.06" (26.9)	.60" (15.2)	1.16" (29.5)	1.02" (25.9)
<sup>1</sup> /2" (16)	H05041	H0504	1.19" (30.2)	1.28" (32.5)	.59"(15.0)	1.34" (34.0)	1.19" (30.2)	.61" (15.2)	1.21" (30.7)	1.06" (26.9)
<sup>3</sup> /4" (21)	H07541	H0754	1.19" (30.2)	1.43" (36.3	.59"(15.0)	1.55" (39.4)	1.45" (36.8)	.84" (21.3)	1.50" (38.1)	1.32" (33.5)
1" (27)	H10041	H1004	1.38" (35.1)	1.53" (38.9	.66"(1.68)	1.95" (49.5)	1.69" (42.9	1.05"(26.7)	1.82" (46.2)	1.59" (40.4)
1 <sup>1</sup> /4" (35)	H12541	H1254	1.42" (36.1)	1.69" (42.9)	.63"(16.0)	2.39" (60.7)	2.06" (52.3)	1.37" (34.8)	2.32" (58.9)	2.03" (51.6)
1 <sup>1</sup> /2" (41)	H15041	H1504	1.66" (42.2)	2.00" (50.8)	.66"(1.68)	2.72" (69.1)	2.38" (60.5)	1.60" (40.6)	2.62" (66.5)	2.29" (58.2)
2" (53)	H20041	H2004	1.69" (42.9	2.25" (57.2)	.66"(1.68)	3.08" (78.2)	2.88" (73.2)	2.05" (52.1)	3.21" (81.5)	2.80" (71.1)

## 90° Liquidtight Connectors







Trade Size (metric	Black Catalog	Gray Catalog	Α	В		С	D	E		=
designator)	designator) Numbers	Numbers			A/C*	A/F*	Ref.	Throat Dia.	A/C*	A/F*
<sup>3</sup> /8" (12)	H03891	H0389	1.31" (33.3)	.59" (15.0)	1.20" (30.5)	1.06" (26.9)	1.44" (36.6)	.60" (15.2)	1.13" (29.0)	.99" (25.1)
<sup>1</sup> /2" (16)	H05091	H0509	1.31" (33.3)	.59" (15.0)	1.34" (34.0)	1.12" (28.4)	1.44" (36.6)	.61" (15.2)	1.12" (28.0)	1.00" (25.4)
<sup>3</sup> /4" (21)	H07591	H0759	1.44" (36.6)	.59" (15.0)	1.55" (39.4)	1.45" (36.8)	1.63" (41.4)	.83" (21.1)	1.48" (38.0)	1.29" (32.8)
1" (27)	H10091	H1009	1.78" (45.2)	.59" (15.0)	1.95" (49.5)	1.60" (40.6)	2.19" (55.6)	1.05"(26.7)	1.80" (46.0)	1.57" (39.9)
11/4" (35)	H12591	H1259	1.97" (50.0)	.63" (16.0)	2.39" (60.7)	2.06" (52.3)	2.50" (63.5)	1.36" (34.5)	2.32" (58.9)	2.02" (51.3)
1 <sup>1</sup> /2" (41)	H15091	H1509	2.19" (55.6)	.63" (16.0)	2.72" (69.1)	2.38" (60.5)	2.69" (68.3)	1.61" (40.9)	2.58" (66.0)	2.25" (57.2)
2" (53)	H20091	H2009	2.53" (64.3)	.66" (16.8)	3.08" (78.2)	2.87" (72.9)	3.25" (82.6)	2.05" (52.1)	3.14" (80.0)	2.75" (69.9)
21/2" (63)	H25091	_	3.44" (87.4)	1.00" (25.4)	3.92" (99.6)	3.63" (92.2)	4.25" (108.0)	2.42" (61.5)	3.78" (96.0)	3.50" (88.9)
3" (78)	H30091	—	3.75" (95.3)	1.00" (25.4)	4.70"(119.4)	4.31" (109.5	4.87" (123.7)	3.01" (76.5)	4.64" (118.0)	4.30" (109.2)
4" (103)	H40091	-	4.25" (108.0)	1.00" (25.4)	5.75"(146.1)	5.31" (134.9)	5.63" (143.0)	3.96" (100.6)	5.76" (146.0)	5.38" (136.7)





#### PolyTuff I and II Conduit/Tubing; PVC Chemical Resistance

Chemical C	onc* 7		150°F 66°C	Chemical	Conc*	Temp. 70°F 21°C	150°F 66°C	Chemical	Conc*	Temp. 70°F 21°C	150°F 66°C
Acetate Solvents		D	D	Cyclohexane		В	С	Monochlorobenezene		А	А
Acetic Acid		В	С	DDT Weed Killer		Α	С	Muriatic Acid (see Hydro	chloric Acid	d)	
Acetic Acid (Glacial)		С	D	Dibutyl Phthalate		D	D	Naphtha		C	D
Acetone		D	D	Diesel Oils		С	D	Naphthalene		D	D
Acrylontrile		А	В	Diethylene Glycol		В	С	Nitric Acid	10%	A	В
Alcohols (Aliphatic)		С	С	Diethyl Ether		Α	С	Nitric Acid	35%		С
Aluminum Chloride		A	Α	Di-isodecyl Phthalate		D	D	Nitric Acid	70%		D
Aluminum Sulfate (Alums)		Α	А	Dioctyl Phthalate		D	D	Oleic Acid		А	С
Ammonia (Anhydrous Liquid		D	D	Dow General Weed Killer (	Phenol)	D	D	Oleum		D	D
Ammonia (Aqueous)	,	Ā	Ā	Dow General Weed Killer (		В	Ċ	Oxalic Acid		Ā	Ā
Ammoniated Latex		A	C	Ethyl Alcohol	···2°)	Č	Č	Pentachlorophenol in Oil		В	C
Ammonium Chloride		A	Ă	Ethylene Dichloride		D	D	Pentane		Č	D
Ammonium Hydroxide		A	A	Ethylene Glycol		B	C	Perchloroethylene		B	C
		D	D								C
Amyl Acetate		-		Ferric Chloride		A	A	Petroleum Ether		C	
Aniline Oils		D	D	Ferric Sulfate		A	A	Phenol	100/	A	A
Aromatic Hydrocarbons		D	D	Ferrous Chloride		Α	A	Phosphoric Acid	10%		A
Asphalt		D	D	Ferrous Sulfate		A	A	Pitch	50%		В
ASTM Fuel A		С	С	Formaldehyde		D	D	Potassium Hydroxide		С	D
ASTM Fuel B		D	D	Fuel Oil		В	С	Sodium Cyanide		А	А
ASTM #1 Oil		В	С	Furfural		С	С	Stoddard Solvent		D	D
ASTM #3 Oil		С	D	Gallic Acid		А	А	Styrene		D	D
Barium Chloride		Ā	Ā	Gasoline (Hi Test)		С	D	Sulfur Dioxide (liquid)		D	D
Barium Sulfide		A	A	Glycerine		Α	А	Sulfuric Acid 50%		А	В
Barium Hydroxide		A	A	Grease		A	C	Sulfuric Acid 98%		D	D
Benzene (Benzol)		D	D	Green Sulfate Liquor		A	A	Sulfurous Acid		B	C
			C	Heptachlor in Petroleum S	olvonte	Â	C	Tall Oil		D	D
Benzine (Petroleum Ether)		C		Heptane	onventa	C	D	Tannic Acid		A	A
Black Liquor		A	A	Hexane		C	D	Toluene		D	D
Bordeaux Mixture		A	A				A			D	D
Boric Acid		A	A	Hydrobromic Acid	100/	A		Trichlorethylene			D
Butyl Acetate		D	D	Hydrochloric Acid	10%		A	Triethanol Amine		С	
Butyl Alcohol		В	С	Hydrochloric Acid	40%		С	Tricresyl Phosphate (Sky	drol)	D	D
Calcium Hydroxide		Α	А	Hydrofluoric Acid	70%		D	Turpentine		С	D
Calcium Hypochlorite		Α	А	Hydrofluorosilicic Acid		A	А	Vinegar		A	В
Carbolic Acid (Phenol)		В	С	Hydrofluorosilicic Acid	10%	Α	А	Vinyl Chloride		D	D
Carbon Dioxide		Α	А	Hydrogen Peroxide		А	В	Water		А	A
Carbon Disulfide		D	D	Iso-Octane		С	С	White Liquor		А	А
Carbon Tetrachloride		D	D	Isopropyl Acetate		D	D	Xylene		D	D
Carbonic Acid		Ā	Ā	Isopropyl Acid		В	С	Zinc Chloride		А	А
Casein		A	C	Jet Fuels (JP–3, and 5)		С	D	Zinc Sulfate		А	А
Caustic Soda		A	B	Kerosene		Ċ	Ċ				
Chlorine Gas (wet)		D	D	Ketones		D	D	Rating Code			
Chlorine Gas (dry)		D	D	Linseed Oil		Ă	Ă	-			
			D	Lubricating Oils		A	A	A-Excellent service			
Chlorine (water solution)		C					A	No harmful effect to reduce			
Chlorobenzene		D	D	Magnesium Chloride		A		Suitable for continuous ser			
Chlorinated Hydrocarbons		D	D	Magnesium Hydroxide		A	A	B-Good service life			
Chromic Acid		В	C	Magnesium Sulfate		A	A	Moderate to minor effect.			
Citric Acid		A	А	Malathion 50 in Aromatic	3	D	D	service. Generally suitable	for continuou	IS	
Coal Tar		D	D	Malic Acid		А	А	service.			
Coconut Oil		С	D	Methyl Acetate		D	D	C-Fair or limited se	rvice.		
Corn Oil		Α	В	Methyl Alcohol		С	С	Depends on operating con	litions. Gene	rally	
Cottonseed Oil		С	D	Methyl Bromide		D	D	suitable for intermittent se	vice. Not rec		
Creosote		Ď	D	Methyl Ethyl Ketone		D	D	mended for continuous ser	vice.		
		C	D	Methylene Chloride		D	D	<b>D-Unsatisfactory</b> set	ervice.		
Cresol											

All ratings apply to concentrated or saturated solutions unless otherwise specified.

Chemical resistance ratings are based upon information supplied by the raw material manufacturers. Use as a general guide only – samples should be tested by user under actual conditions. \*Conc. – Concentration



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