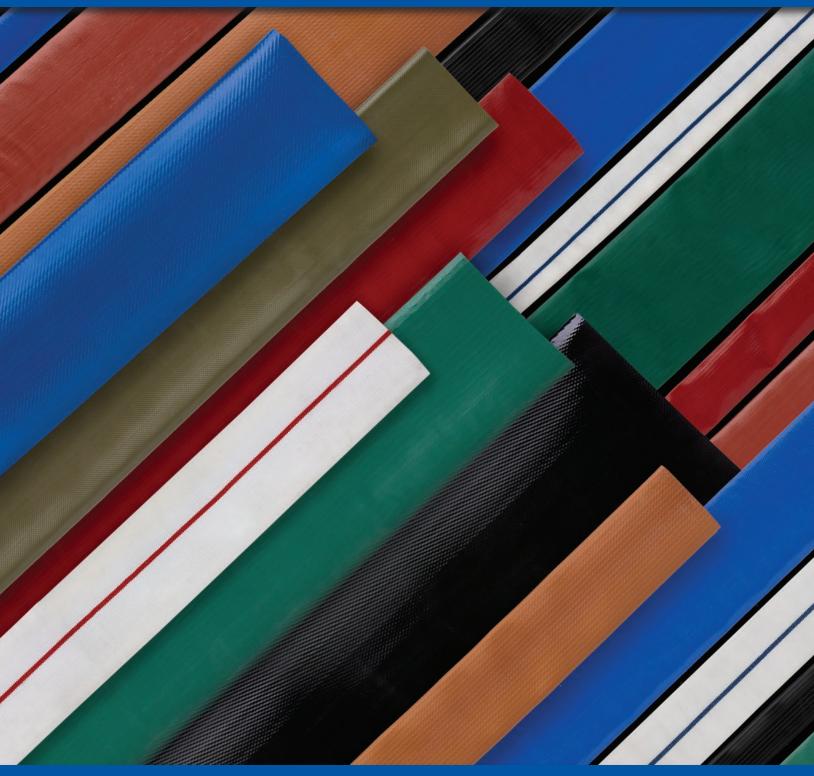


Kuriyama Layflat Hose and Accessories





Kuriyama of America, Inc.





Layflat Hose Product Selection Chart



CATEGORY				PVC				PVC/Ni	trile
CATALOG PAGE	7	5	6	8	9	10	11	12	14
PRODUCT	Vinylflow [®]	Vinylflow® EZ-Lite™	Vinylgreen®	Tuffsides™	Ironsides®	PVC Layflat Assemblies Blue	PVC Layflat Assemblies Red	OROFLEX® 10	OROFLEX® 20
MATERIAL	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC/NITRILE	PVC/ NITRILE
COLOR	BLUE	BLUE	GREEN	RED	RED	BLUE	RED	BLACK	YELLOW
APPLICATION	Irrigation Agriculture	Industrial Rental	Irrigation Agriculture	Industrial	Mining Industrial	Industrial Rental	Industrial Rental	Industrial	Liquid / Air
3/4"		100 psi							480 / 360 psi
1"		85 psi							550 / 415 psi
1 1/4"		85 psi							
1 1/2"	80 psi	65 psi	80 psi	145 psi	150 psi	70 psi	140 psi	200 psi	305 / 225 psi
2"	80 psi	65 psi	80 psi	145 psi	150 psi	65 psi	128 psi	200 psi	305 / 225 psi
2 1/2"	80 psi				150 psi			200 psi	
3"	70 psi	60 psi	70 psi	145 psi	150 psi	60 psi	125 psi	175 psi	260 / 160 psi
3 1/2"									
4"	70 psi	60 psi	70 psi	120 psi	125 psi	50 psi	125 psi	175 psi	300 psi
4 1/2"									
5"	40 psi							175 psi	
5 1/2"					_				
6"	50 psi	40 psi	50 psi	115 psi	115 psi			175 psi	290 psi
7" 8"	45 psi	40	45	70	70:			145	
8" 10"	35 psi	40 psi	45 psi	70 psi	70 psi			145 psi	
10"	30 psi 30 psi				65 psi			145 psi 115 psi	
16"	30 psi							- 113 psi	
10	_ 30 μ31								
STOCK LENGTHS	100, 300	50,300	300	300	100, 300	50	50	50, 100, 200	50, 100, 200



Layflat Hose Product Selection Chart

CATEGORY	PVC/I	Nitrile		Polyureth	ane (TPU)		Po	olyester/Rubb	er
CATALOG PAGE	15	13	18	16	17	19	20	20	21
PRODUCT	OROFLEX® 20	OROFLEX® Bandama	OROFLEX® Terrain	OROFLEX® Aqua	OROFLEX® Drag	OROFLEX® Oil	Single Jacket Hose	Double Jacket Hose	Double Jacket Assemblies
MATERIAL	PVC/ NITRILE	PVC/ NITRILE	POLYURETHANE	POLYURETHANE	POLYURETHANE	POLYURETHANE	POLYESTER /RUBBER	POLYESTER /RUBBER	POLYESTER /RUBBER
COLOR	BLACK	BLACK	BLACK	BLUE	GREEN	ARMY GREEN or TAN	WHITE	WHITE	WHITE
APPLICATION	Water Transfer Manure Transfer	Irrigation	Water Transfer Fracking	Potable Water Bypass	Manure Drag	Hydrocarbs to MIL C-370J	Industrial Construction	Industrial Construction	Industrial Construction
3/4"									
1"				240 psi					
1 1/4"									
1 1/2"				300 psi			150 psi	200 psi	200 psi
2"				240 psi		150 psi	150 psi		
2 1/2"		290 psi		240 psi		150 psi	150 psi	200 psi	200 psi
3"		260 psi		240 psi		150 psi	150 psi		
3 1/2"		230 psi				150 psi			
4"		200 psi	320 psi	240 psi	245 psi	150 psi	150 psi		
4 1/2"		175 psi			200 psi				
5"		175 psi			200 psi				
5 1/2"					175 psi				
6"	290 psi	175 psi	320 psi	240 psi	175 psi	150 psi			
7"	230 psi								
8"	200 psi		200 psi	200 psi					
10"	200 psi		200 psi	200 psi					
12"	155 psi		175/200 psi	175/200 psi					
16"									
STOCK									
LENGTHS	660	660	660	200, 660	660	200, 660	50, 100	100	50

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Layflat Hoses, Couplings and Accessories by Series/Part Number

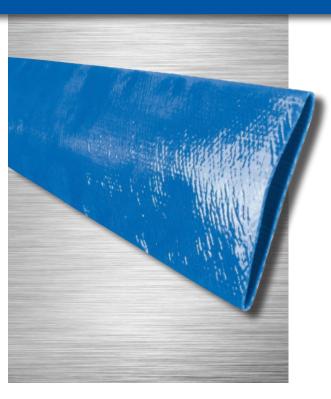
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YinyIflow® EZ-Lite™



VFL Series General Purpose PVC Water Discharge Hose

General Applications:

- Agriculture
- Construction
- Equipment rental

Construction:

Spiral homogeneous PVC construction is ideal for construction and agriculture applications, and provides for minimal elongation.

Service Temperature Range:

-5°F (-20°C) to +170°F (+76°C)

Features and Advantages:

- **Durable PVC Material** Provides good abrasion, chemical and UV resistance.
- "EZ" Design An easy to handle, lightweight hose for general purpose applications.
- Smooth PVC Tube Provides low friction loss.
- PVC Cores Hoses coiled around durable PVC cores providing for easy unwinding.
- Compact Design Flat hose design rolls up into tight coils for easy storage and transport, takes up less space than other hoses.

Note: Longer lengths available by special order.

Nominal Specifications											
Series	Size		Hose ID		Wall Thickness	Working Pressure	Burst Pressure	Coil	Weight		
Number	(in)	(mm)	(in)	(mm)	(in)	(psi) at 68°F	(psi) at 68°F	Length (ft)	(lbs/ft)		
VFL075	3/4	19.1	0.760	19.3	0.054	100	300	300	0.08		
VFL100	1	25.4	1.024	26.0	0.051	85	255	300	0.10		
VFL125	1 1/4	31.8	1.299	33.0	0.051	85	255	300	0.12		
VFL150	1 1/2	38.1	1.614	41.0	0.045	65	195	300	0.14		
VFL200	2	50.8	2.087	53.0	0.048	65	195	300/50	0.16		
VFL300	3	76.2	3.071	78.0	0.055	60	180	300/50	0.30		
VFL400	4	101.6	4.094	104.0	0.056	60	180	300	0.44		
VFL600	6	152.4	6.102	155.0	0.061	40	120	300	0.70		
VFL800	8	203.2	8.189	208.0	0.073	40	120	300	1.04		

Vinylgreen[™]



VG Series PVC Drip Irrigation & Water Discharge Hose

General Applications:

- Agriculture
- Construction
- Drip irrigation
- Industrial

Construction:

Spiral homogeneous PVC construction is ideal for irrigation and agriculture applications, and provides for minimal elongation.

Service Temperature Range:

-5°F (-20°C) to +170°F (+76°C)



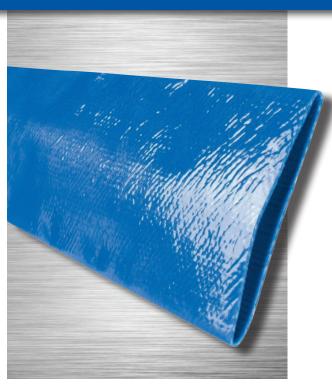
- **Durable PVC Material** Provides good abrasion, chemical and UV resistance.
- **Drip Irrigation** Hose designed to be punched easily without tearing. Ideal for drip irrigation applications.
- Smooth PVC Tube Provides low friction loss.



- **PVC Cores** Hoses coiled around durable PVC cores providing for easy unwinding.
- Compact Design Flat hose design rolls up into tight coils for easy storage and transport, takes up less space than other hoses.

Nominal Specifications												
Series Number	Si	ze	Hose ID		Wall	Working	Burst	Coil	Weight			
	(in)	(mm)	(in)	(mm)	Thickness (in)	Pressure (psi) at 68°F	Pressure (psi) at 68°F	Length (ft)	(lbs/ft)			
VG150	1 1/2	38.1	1.610	40.9	0.067	80	240	300	0.16			
VG200	2	50.8	2.090	53.1	0.067	80	240	300	0.23			
VG300	3	76.2	3.130	79.5	0.079	70	210	300	0.39			
VG400	4	101.6	4.130	104.9	0.083	70	210	300	0.52			
VG600	6	152.4	6.181	157.0	0.087	50	150	300	0.86			
VG800	8	203.2	8.169	207.5	0.106	45	135	300	1.30			

Yinylflow[®]



VF Series Premium PVC Drip Irrigation & Water Discharge Hose

General Applications:

- Agriculture
- Construction
- Drip irrigation
- Industrial

Construction:

Spiral homogeneous PVC construction is ideal for irrigation and agriculture applications, and provides for minimal elongation.

Service Temperature Range:

-5°F (-20°C) to +170°F (+76°C)

Features and Advantages:

- **Durable PVC Material** Provides good abrasion, chemical and UV resistance.
- **Drip Irrigation** Hose designed to be punched easily without tearing. Ideal for drip irrigation applications.
- Smooth PVC Tube Provides low friction loss.
- PVC Cores Hoses coiled around durable PVC cores providing for easy unwinding.
- Compact Design Flat hose design rolls up into tight coils for easy storage and transport, takes up less space than other hoses.

Note: Longer lengths available by special order.

Nominal Specifications											
Series	Si	ze	Hose ID		Wall Thickness	Working Pressure	Burst	Coil	Weight		
Number	(in)	(mm)	(in)	(mm)	(in)	(psi) at 68°F	Pressure (psi) at 68°F	Length (ft)	(lbs/ft)		
VF150	1 1/2	38.1	1.614	41.0	0.067	80	240	300	0.16		
VF200	2	50.8	2.090	53.1	0.067	80	240	300	0.23		
VF250	2 1/2	63.5	2.598	66.0	0.079	80	240	300	0.29		
VF300	3	76.2	3.130	79.5	0.079	70	210	300	0.39		
VF400	4	101.6	4.134	105.0	0.083	70	210	300	0.52		
VF500	5	127.0	5.039	128.0	0.087	40	120	300	0.68		
VF600	6	152.4	6.181	157.0	0.087	50	150	300	0.86		
VF800	8	203.2	8.169	207.5	0.106	45	135	300/100	1.30		
VF1000	10	254.0	10.118	257.0	0.118	35	105	100	1.81		
VF1200	12	304.8	12.126	308.0	0.118	30	90	100	1.95		
VF1400	14	355.6	14.134	359.0	0.118	30	90	100	2.62		
VF1600	16	406.4	16.142	410.0	0.118	30	90	100	3.10		

Tuffsides[™]



TS Series Heavy Duty PVC Water Discharge Hose

General Applications:

- Agriculture
- Construction
- Industrial
- Quarry

Construction:

Spiral homogeneous PVC construction is ideal for agriculture and construction applications, and provides for minimal elongation.

Service Temperature Range:

-5°F (-20°C) to +170°F (+76°C)

Features and Advantages:

- **Durable PVC Material** Provides good abrasion, chemical and UV resistance.
- Heavy Duty Construction Designed for applications requiring higher working pressures.
- Smooth PVC Tube Provides low friction loss.



- **PVC Cores** Hoses coiled around durable PVC cores providing for easy unwinding.
- Compact Design Flat hose design rolls up into tight coils for easy storage and transport, takes up less space than other hoses.

Nominal Specifications												
Series Number	Si	Size		e ID	Wall	Working	Burst	Coil	Weight			
	(in)	(mm)	(in)	(mm)	Thickness (in)	Pressure (psi) at 68°F	Pressure (psi) at 68°F	Length (ft)	(lbs/ft)			
TS150	1 1/2	38.1	1.610	40.9	0.068	145	435	300	0.20			
TS200	2	50.8	2.090	53.1	0.072	145	435	300	0.27			
TS300	3	76.2	3.090	78.5	0.095	145	435	300	0.50			
TS400	4	101.6	4.100	104.1	0.100	120	360	300	0.67			
TS600	6	152.4	6.160	156.5	0.115	115	345	300	1.15			
TS800	8	203.2	8.150	207.0	0.120	70	210	300	1.55			

Ironsides®



IS Series Premium Heavy Duty PVC Water Discharge Hose

General Applications:

- Agriculture
- Construction
- Industrial
- Mining
- Quarry

Construction:

Spiral homogeneous PVC construction is ideal for agriculture and mining applications, and provides for minimal elongation.

Service Temperature Range:

-5°F (-20°C) to +170°F (+76°C)

Features and Advantages:

- **Durable PVC Material** Provides good abrasion, chemical and UV resistance.
- Premium Heavy Duty Construction Our most durable PVC layflat hose. Designed for applications requiring higher working pressures.
- MSHA Accepted Hose accepted by United States Dept. of Labor's Mine Safety and Health Administration as having met the Interim Fire Criteria Acceptance of Products Taken Into Underground Mines, acceptance no. IC-218/3.
- UV Resistant Hose resists damage that can result from exposure to UV light, allowing for prolonged outdoor use.
- Smooth PVC Tube Provides low friction loss.
- PVC Cores Hoses coiled around durable PVC cores providing for easy unwinding.
- Compact Design Flat hose design rolls up into tight coils for easy storage and transport, takes up less space than other hoses.

Note: Longer lengths available by special order.

Nominal Specifications											
Series Number	Si	ze	Hose ID		Wall	Working	Burst	Coil	Weight		
	(in)	(mm)	(in)	(mm)	Thickness (in)	Pressure (psi) at 68°F	Pressure (psi) at 68°F	Length (ft)	(lbs/ft)		
IS150	1 1/2	38.1	1.610	40.9	0.087	150	450	300	0.23		
IS200	2	50.8	2.090	53.1	0.091	150	450	300	0.32		
IS250	2 1/2	63.5	2.579	65.5	0.095	150	450	300	0.41		
IS300	3	76.2	3.090	78.5	0.098	150	450	300	0.52		
IS400	4	101.6	4.098	104.1	0.110	125	375	300	0.76		
IS600	6	152.4	6.161	156.5	0.118	115	345	300	1.21		
IS800	8	203.2	8.150	207.0	0.122	70	210	300/100	1.62		
IS1000	10	254.0	10.120	257.0	0.130	65	195	100	1.95		

PVC Layflat Hose Assemblies



General Applications:

- Agriculture Construction Contractor
- Industrial Rental

Construction:

Spiral homogeneous PVC construction is ideal for agriculture and construction applications, and provides for minimal elongation.

Service Temperature Range:

-4°F (-20°C) to +150°F (+65°C)

Features and Advantages:

- Smooth Tube Provides low friction loss.
- Packaging Individual carton.
- Storage Hose coils flat for easy storage.

Nominal Specifications											
Part	Size		Wall	Working	Coil	Weight					
Number	(in)	(mm)	Thickness (in)	Pressure (psi) at 68°F	Length (ft)	(ea/lbs)					
LF150APLX50	1 1/2	38.1	0.059	70	50	9.00					
LF200APLX50	2	50.8	0.063	65	50	13.50					
LF300APLX50	3	76.2	0.067	60	50	21.50					
LF400APLX50	4	101.6	0.067	50	50	30.00					



Hose Ends: Aluminum pin lug couplings male and female

Nominal Specifications												
Part	Si	ze	Wall	Working	Coil	Weight						
Number	(in)	(mm)	Thickness (in)	Pressure (psi) at 68°F	Length (ft)	(ea/lbs)						
LF150ACEX50	1 1/2	38.1	0.059	70	50	9.50						
LF200ACEX50	2	50.8	0.063	65	50	13.60						
LF300ACEX50	3	76.2	0.067	60	50	22.00						
LF400ACEX50	4	101.6	0.067	50	50	31.50						



Hose Ends: Aluminum quick couplings male x female

Nominal Specifications												
Part	Si	ze	Wall	Working	Coil	Weight						
Number	(in)	(mm)	Thickness (in)	Pressure (psi) at 68°F	Length (ft)	(ea/lbs)						
LFR150APLX50	1 1/2	38.1	0.079	140	50	13.50						
LFR200APLX50	2	50.8	0.079	128	50	18.00						
LFR300APLX50	3	76.2	0.098	125	50	28.00						
LFR400APLX50	4	101.6	0.110	125	50	40.50						



Hose Ends: Aluminum pin lug couplings male and female

Nominal	Nominal Specifications											
Part	Si	ze	Wall	Working	Coil	Weight						
Number	(in)	(mm)	Thickness (in)	Pressure (psi) at 68°F	Length (ft)	(ea/lbs)						
LFR150ACEX50	1 1/2	38.1	0.079	140	50	14.00						
LFR200ACEX50	2	50.8	0.079	128	50	18.50						
LFR300ACEX50	3	76.2	0.098	125	50	28.50						
LFR400ACEX50	4	101.6	0.110	125	50	41.00						



Hose Ends: Aluminum quick couplings male x female

EZ-Seal[™] Leak **Resistant Couplings**

Ideally suited for Layflat hoses

General Applications:

- Agriculture Chemicals Petroleum
- Construction Material handling

Construction:

• Aluminum; ASTM B85 Grade 383.

Features and Advantages:

- Rubber seals Help prevent leakage.
- Interchangeability Part C & E conform to Mil Spec A-A-59326.
- Versatile Suitable for use with other PVC and Rubber Hoses.

Note: To insure proper sealing attach band clamps directly over rubber seals.



Aluminum Part C Female Coupler x Hose Shank

Part Number	Size (in)	Weight Each (lbs)	Standard Carton
AL-CLF150	1 1/2	0.77	30
AL-CLF200	2	0.98	40
AL-CLF300	3	1.98	15
AL-CLF400	4	2.87	15
AL-CLF600	6	5.65	6



Aluminum Part E Male Adapter x Hose Shank

_				
	Part Number	Size (in)	Weight Each (lbs)	Standard Carton
Ī	AL-ELF150	1 1/2	0.44	40
	AL-ELF200	2	0.64	50
	AL-ELF300	3	1.38	18
	AL-ELF400	4	2.51	20
	AL-ELF600	6	4.83	6



Aluminum Pin Lug Hose Shank with Brass Swivel Nut Female End (NPSM Threads)

Part Number	Size (in)	Weight Each (lbs)	Standard Carton
ABF-LF150	1 1/2	0.37	150
ABF-LF200	2	0.58	80
ABF-LF300	3	1.16	24
ABF-LF400	4	2.01	20



Aluminum Pin Lug Hose Shank Male End (NPSM Threads)

Part Number	Size (in)	Weight Each (lbs)	Standard Carton
ABM-LF150	1 1/2	0.22	150
ABM-LF200	2	0.40	80
ABM-LF300	3	1.04	24
ABM-LF400	4	1.48	20

OROFLEX® 10



OF10 Series PVC/Nitrile Rubber Discharge Hose

General Applications:

- Agriculture
- Cable covering
- Dewatering
- Drainage
- Floatation booms
- Industrial washdown
- Irrigation
- Limited oil and chemical applications
- Pump discharge
- Watering



Construction:

Black PVC/Nitrile hose using an extruded throughthe-weave process with circular woven high tenacity polyester reinforcement.

Service Temperature Range:

-22°F (-30°C) to +176°F (+80°C)

Features and Advantages:

- Proprietary PVC/Nitrile Material Specially developed PVC/Nitrile material provides superior abrasion, UV, chemical and oil resistance compared to PVC hoses.
- Unique Woven Construction Specially designed weave pattern provides resistance to snaking, kinking, stretching and twisting.
- Compact Design Flat hose design rolls up into tight coils for easy storage and transport, takes up less space than other hoses.





Nomi	Nominal Specifications												
	Si	ze	Hose ID		Wall	Working	Burst		Tensile				
Series Number	(in)	(mm)	(in)	(mm)	Thickness (in)	Pressure (psi) at 68°F	Pressure (psi) at 68°F	Coil Length (ft)	Strength (lbs)	Weight (lbs/ft)			
0F10-150	1 1/2	38.1	1.520	38.6	0.075	200	600	200	6,500	0.20			
0F10-200	2	50.8	2.110	53.6	0.075	200	600	200	8,250	0.27			
0F10-250	2 1/2	63.5	2.590	65.8	0.087	200	600	200	11,300	0.38			
0F10-300	3	76.2	3.181	80.8	0.091	175	460	200/100	11,750	0.48			
0F10-400	4	101.6	4.200	106.7	0.094	175	435	660/200/100/50	17,400	0.70			
0F10-500	5	127.0	5.020	127.5	0.106	175	435	200	20,650	0.94			
0F10-600	6	152.4	6.098	154.9	0.118	175	435	660/200/100/50	36,000	1.08			
0F10-800	8	203.2	8.051	204.5	0.134	145	360	100/50	51,950	1.85			



OROFLEX® BANDAMA









Ideal for traveling irrigators.

BD Series PVC/Nitrile Rubber Irrigation Hose

General Applications:

- Flexible pipeline
- Heavy duty dredge discharge
- High abrasion resistant applications
- Irrigation supply lines
- Slurry, sludge, liquid manure pumping
- Traveling irrigators

Construction:

Black PVC/Nitrile hose using an extruded throughthe-weave process with circular woven high tenacity polyester reinforcement.

Service Temperature Range:

-20°F (-29°C) to +176°F (+80°C)

Features and Advantages:

- Proprietary PVC/Nitrile Material Specially developed PVC/Nitrile material provides superior abrasion, UV, chemical and oil resistance compared to PVC hoses.
- Superior Snaking Resistance! Specially designed to virtually eliminate instances of hose snaking, making the hose ideal for use on traveling irrigators.
- Unique Woven Construction Specially designed weave pattern provides resistance to kinking, stretching and twisting.
- Longer Lengths Manufactured in special 660 foot lengths to reduce possible leaking points.
- Compact Design Flat hose design rolls up into tight coils for easy storage and transport, takes up less space than other hoses.

Nomi	Nominal Specifications												
Series	Size		Hose ID		Wall	Working	Burst Pressure	Coil	Tensile	Weight			
Number	(in)	(mm)	(in)	(mm)	Thickness (in)	Pressure (psi) at 68°F	(psi) at 68°F	Length (ft)	Strength (lbs)	(lbs/ft)			
BD250	2 1/2	63.5	2.598	66.0	0.120	290	725	660	11,728	0.57			
BD300	3	76.2	3.051	77.5	0.120	260	650	660	18,475	0.67			
BD350	3 1/2	88.9	3.543	90.0	0.130	230	580	660	20,503	0.77			
BD400	4	101.6	4.067	103.3	0.130	200	505	660	22,046	0.94			
BD450	4 1/2	114.3	4.626	117.5	0.130	175	435	660	25,353	1.08			
BD500	5	127.0	5.020	127.5	0.140	175	435	660	27,161	1.21			
BD600	6	152.4	6.043	153.5	0.140	175	435	660	33,069	1.41			

OROFLEX® 20 YELLOW



OF20Y Series Heavy Duty PVC/Nitrile Air & Discharge Hose

General Applications:

- Agriculture
- Air compressors
- Bulk powder discharge (excluding cement)
- Cable covering
- Dewatering
- Drainage
- Flotation booms
- High pressure liquid pumping
- Industrial washdown
- Irrigation
- Limited oil and chemical applications
- Watering



Construction:

Yellow PVC/Nitrile hose using an extruded throughthe-weave process with circular woven high tenacity polyester reinforcement.

Service Temperature Range:

-22°F (-30°C) to +176°F (+80°C)

Features and Advantages:

- Proprietary PVC/Nitrile Material Specially developed PVC/Nitrile material provides superior abrasion, UV, chemical and oil resistance compared to PVC hoses.
- Unique Woven Construction Specially designed weave pattern provides resistance to snaking, kinking, stretching and twisting.
- Compact Design Flat hose design rolls up into tight coils for easy storage and transport, takes up less space than other hoses.





Nomi	Nominal Specifications												
Series	Size		Hose ID		Wall Thickness	Working Pressure (psi) at 68°F		Burst Pressure	Coil Length	Tensile Strength	Weight		
Number	(in)	(mm)	(in)	(mm)	(in)	(liquid)	(air)	(psi) at 68°F	(ft)	(lbs)	(lbs/ft)		
0F20Y-075	3/4	19.1	0.866	22.0	0.080	480	360	1450	200/50	3,300	0.13		
0F20Y-100	1	25.4	1.075	27.3	0.080	550	415	1660	200/50	4,150	0.17		
0F20Y-150	1 1/2	38.1	1.555	39.5	0.110	305	225	910	200	6,600	0.30		
0F20Y-200	2	50.8	2.106	53.5	0.120	305	225	910	200	8,250	0.43		
0F20Y-300	3	76.2	3.031	77.0	0.120	260	160	650	200	18,750	0.61		
0F20Y-400	4	101.6	4.035	102.5	0.120	300	-	750	200	28,650	0.84		
0F20Y-600	6	152.4	6.063	154.0	0.160	290	-	725	100	51,600	1.68		

OROFLEX® 20 BLACK





General Applications:

- Agriculture
- Contaminated liquids, fertilizers, oils, hydrocarbons
- Dewatering
- Frack solution and fresh water transfer
- Irrigation
- Limited chemical applications
- Liquid manure, sludge and slurry transfer
- Mining
- Watering







Construction:

Black PVC/Nitrile hose using an extruded through-the-weave process with circular woven high tenacity polyester reinforcement.

Service Temperature Range:

-20°F (-29°C) to +176°F (+80°C)

Features and Advantages:

- Proprietary PVC/Nitrile Material Specially developed PVC/Nitrile material provides superior abrasion, UV, chemical and oil resistance compared to PVC hoses.
- Unique Woven Construction Specially designed weave pattern provides resistance to snaking, kinking, stretching and twisting.
- Longer Lengths Manufactured in special 660 foot lengths to reduce possible leaking points.
- Compact Design Flat hose design rolls up into tight coils for easy storage and transport, takes up less space than other hoses.

Nominal Specifications											
Series Number	Size		Hose ID		Wall	Working	Burst	Coil	Tensile		
	(in)	(mm)	(in)	(mm)	Thickness (in)	Pressure (psi) at 68°F	Pressure (psi) at 68°F	Length (ft)	Strength (lbs)	Weight (lbs/ft)	
0F20B-600	6	152.4	6.063	154.0	0.160	290	725	660	51,600	1.68	
0F20B-700	7	177.8	7.126	181.0	0.160	230	580	660	66,150	1.88	
0F20B-800	8	203.2	8.091	205.5	0.150	200	500	660	77,150	2.22	
0F20B-1000	10	254.0	10.059	255.5	0.150	200	500	660/100/50	110,250	2.65	
0F20B-1200	12	304.8	12.087	307.0	0.160	155	375	660/100/50	101,400	3.43	

OROFLEX® AQUA



NEW **OFAQ Series**

Polyurethane Potable Water Discharge Hose

General Applications:

- Drinking water transport
- Emergency water supply
- Liquid and powder food transfer
- Potable water to transfer ships/boats
- Sewer and water treatment

Construction:

Blue NSF-61 polyurethane (TPU) hose using an extruded through-the-weave process with circular woven high tenacity polyester reinforcement.

Service Temperature Range:

 $-58^{\circ}F$ (-50°C) to +122°F (+50°C); Intermittent service to +175°F (+79°C)

Features and Advantages:

- Premium Polyurethane (TPU) Material -Exhibits exceptional resistance to abrasion. allowing for use in applications where severe abrasion is a factor and providing longer service life versus rubber or PVC hoses. Also, exhibits exceptional resistance to oils and petroleum based products.
- NSF-61 Certified Hose is certified under NSF/ANSI 61: Drinking Water System Components.





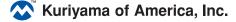


- Unique Woven Construction Specially designed weave pattern provides resistance to snaking, kinking, stretching and twisting.
- Longer Lengths Available in 200 foot lengths and also longer 660 foot lengths to reduce possible leaking points.
- Smooth TPU Tube Provides low friction loss.
- Compact Design Flat hose design rolls up into tight coils for easy storage and transport, takes up less space than other hoses.

Nomina	Nominal Specifications													
Series	Si	ze	Hose ID		Wall Thickness	Working	Burst	Coil	Weight					
Number	(in)	(mm)	(in)	(mm)	(in)	Pressure (psi) at 68°F	Pressure (psi) at 68°F	Length (ft)	(lbs/ft)					
OFAQ-100	1	25.4	1.004	25.5	0.071	240	725	660, 200	0.11					
0FAQ-150	1 1/2	38.1	1.559	39.6	0.079	300	900	660, 200	0.24					
OFAQ-200	2	50.8	2.059	52.3	0.075	240	600	660, 200	0.26					
0FAQ-250	2 1/2	63.5	2.618	66.5	0.090	240	600	660, 200	0.35					
OFAQ-300	3	76.2	3.059	77.7	0.093	240	600	660, 200	0.43					
OFAQ-400	4	101.6	4.059	103.1	0.106	240	600	660, 200	0.67					
OFAQ-600	6	152.4	6.020	152.9	0.138	240	600	660, 200	1.18					
+0FAQ-800	8	203.2	8.100	206.0	0.169	200	600	660	2.22					
+0FAQ-1000	10	254.0	10.100	256.0	0.177	200	500	660	2.80					
+0FAQ-1200	12	304.8	12.100	307.5	0.185	175	435	660	3.43					
+0FAQH-1200	12	304.8	12.100	307.5	0.197	200	500	660	3.55					

⁺ NOTE: This is a non-stock product. Minimum order requirements may apply. Contact Kuriyama customer service for details. **NSF Note:** Only products bearing the NSF mark are certified.

Recommended Operating PH Range: 4 to 9 below +86°F (+30°C) and 5 to 9 from +86°F (+30°C) to +122°F (+50°C).





OROFLEX® DRAG









Ideal for drag manure spreading.

OFDG Series Polyurethane Manure Drag Hose

General Applications:

- Drag and transport lines for slurry/manure injection and spreading
- Irrigation feeding line
- Traveler irrigators

Construction:

Green polyurethane (TPU) hose using an extruded through-the-weave process with circular woven high tenacity polyester reinforcement.

Service Temperature Range:

-58°F (-50°C) to +150°F (+65°C); Intermittent service to +175°F (+79°C)

Features and Advantages:

- Premium Polyurethane (TPU) Material –
 Exhibits exceptional resistance to abrasion, allowing for use in applications where severe abrasion is a factor and providing longer service life versus rubber or PVC hoses.

 Also, exhibits exceptional resistance to oils and petroleum based products.
- **Unique Woven Construction** Specially designed weave pattern provides resistance to snaking, kinking, stretching and twisting.
- Longer Lengths Manufactured in special 660 foot lengths to reduce possible leaking points.
- Smooth TPU Tube Provides low friction loss.
- Compact Design Flat hose design rolls up into tight coils for easy storage and transport, takes up less space than other hoses.

Nominal Specifications													
	Size		Hose ID		Wall	Working	Burst	Coil	Tensile				
Series Number	(in)	(in) (mm) (in)	(in)	(mm)	Thickness (in)	Pressure (psi) at 68°F	Pressure (psi) at 68°F	Length (ft)	Strength (lbs)	Weight (lbs/ft)			
+0FDG-400	4	101.6	4.110	104.4	0.140	245	605	660	28,900	0.87			
+0FDG-450	4 1/2	114.3	4.598	116.8	0.140	200	505	660	35,300	0.94			
OFDG-500	5	127.0	5.020	127.5	0.150	200	505	660	39,700	1.14			
0FDG-550	5 1/2	139.7	5.571	141.5	0.150	175	435	660	44,100	1.28			
OFDG-600	6	152.4	6.003	152.5	0.150	175	435	660	55,100	1.38			

⁺ **NOTE:** This is a non-stock product. Minimum order requirements may apply. Contact Kuriyama customer service for details.

OROFLEX® TERRAIN™



OFTR Series



Polyurethane Discharge Hose

General Applications:

- Dewatering
- Fluid transfer (see chemical chart)
- Large volume water transfer including fracking
- Manure transfer
- Mining
- Drinking water transport

Construction:

Black polyurethane (TPU) hose using an extruded through-the-weave process with circular woven high tenacity polyester reinforcement.

Service Temperature Range:

-58°F (-50°C) to +150°F (+65°C); Intermittent service to +175°F (+79°C)

Features and Advantages:

- Premium Polyurethane (TPU) Material Exhibits exceptional resistance to abrasion, allowing for use in applications where severe abrasion is a factor and providing longer service life versus rubber or PVC hoses. Also, exhibits exceptional resistance to oils and petroleum based products.
- Unique Woven Construction Specially designed weave pattern provides resistance to snaking, kinking, stretching and twisting.
- Longer Lengths Manufactured in special 660 foot lengths to reduce possible leaking points.
- Smooth TPU Tube Provides low friction loss.
- Compact Design Flat hose design rolls up into tight coils for easy storage and transport, takes up less space than other hoses.







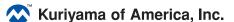


Nomina	Nominal Specifications													
Conico	S	ize	Hose ID		Wall	Working	Burst	Coil	Tensile	Wainbi				
Series Number	(in)	(mm)	(in)	(mm)	Thickness (in)	Pressure (psi) at 68°F	Pressure (psi) at 68°F	Length (ft)	Strength (lbs)	Weight (lbs/ft)				
+0FTR-400	4	101.6	4.008	101.8	0.140	320	800	660	26,450	0.90				
+0FTR-600	6	152.4	6.000	152.4	0.180	320	800	660	63,950	1.66				
0FTR-800	8	203.2	8.100	206.0	0.165	200	600	660	77,200	2.22				
+0FTR-1000	10	254.0	10.100	256.0	0.169	200	500	660	99,200	2.80				
+0FTR-1200	12	304.8	12.106	307.5	0.185	175	435	660	121,300	3.43				
+0FTRH-1200	12	304.8	12.106	307.5	0.185	200	500	660	154,300	3.55				

Note: NSF/ANSI/Can Standard 61 – Hose can be specially manufactured and certified on request. Contact Kuriyama customer service for details.

+ NOTE: This is a non-stock product. Minimum order requirements may apply. Contact Kuriyama customer service for details.

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.





OROFLEX® TERRAIN® ASSEMBLIES





OFTRC Series Polyurethane Discharge Hose Assemblies

General Applications:

Transfer of freshwater or frackwater

Construction:

Black polyurethane (TPU) hose using an extruded through-the-weave process with circular woven high tenacity polyester reinforcement.

Service Temperature Range:

-58°F (-50°C) to +150°F (+65°C); Intermittent service to +175°F (+79°C)

Features and Advantages:

- Premium Polyurethane (TPU) Material –
 Exhibits exceptional resistance to abrasion, allowing for use in applications where severe abrasion is a factor and providing longer service life versus rubber or PVC hoses. Also, exhibits exceptional resistance to oils and petroleum based products.
- Couplings Included Durable and lightweight oilfield hose couplings (AL-LDHC Series) on hose ends.
- Unique Woven Construction Specially designed weave pattern provides resistance to kinking, stretching and twisting. Superior snaking resistance!
- Longer Lengths Manufactured in special 660 foot lengths to reduce possible leaking points.
- Smooth TPU Tube Provides low friction loss.
- Compact Design Flat hose design rolls up into tight coils for easy storage and transport, takes up less space than other hoses.

Nominal Specifications											
Dovi	Size		Wall	Working	Burst	Cail Langth	Tensile	VA/a:b4			
Part Number	(in)	(mm)	Thickness (in)	Pressure (psi) at 68°F	Pressure (psi) at 68°F	Coil Length (ft)	Strength (lbs)	Weight (lbs/ft)			
OFTRC-1000X660	10	254.0	0.169	200	500	660	100,310	2.82			
OFTRC-1200X660	12	304.8	0.185	175	435	660	121,254	3.52			
+0FTRCH-1200X660	12	304.8	0.185	200	500	660	154,300	3.63			

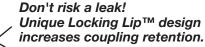
⁺ NOTE: This is a non-stock product. Minimum order requirements may apply. Contact Kuriyama customer service for details.

Kuriyama Oilfield Couplings & Gaskets



AL-LDHC Series Oilfield Hose Coupling

- · Lightweight aluminum with abrasion resistant anodized hard coating
- Mulitple collar segments evenly distribute pressure on the hose for even sealing
- Locking Lip™ provides better coupling rentention than other designs







Nominal Specifications										
Part Number	Size (in)	Working Pressure (psi) at 68°F	Burst Pressure (psi) at 68°F	Weight Each (lbs)	Standard Carton					
AL-LDHC1000	10	200	600	41.20	1					
AL-LDHC1200	12	200	600	57.30	1					

GEC-B Series Grooved Couplings

- For use with AL-LDHC coupling or grooved end pipe
- Durable ductile iron
- UL listed
- Buna (nitrile) gasket included

Nominal Specifications										
Part Number Size Weight Each Standard (lbs) Carton										
GEC-B1000	10	26.15	1							
GEC-B1200	12	30.65	1							



GEG-Buna Grooved Gasket

- Fits GEC-B Series couplings
- · Buna (nitrile) material, resistant to oil, gas, and moderately aggressive chemicals

Nominal Specifications									
Part Number	Size (in)	Weight Each (lbs)	Standard Carton						
GEG-BUNA1000	10	0.771	1						
GEG-BUNA1200	12	0.889	1						



Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.

www.kuriyama.com



OROFLEX® OIL







Features and Advantages:

- Premium Polyurethane (TPU) Material –
 Exhibits exceptional resistance to abrasion, allowing for use in applications where severe abrasion is a factor and providing longer service life versus rubber or PVC hoses.

 Also, exhibits exceptional resistance to oils and petroleum based products.
- Grounding Wires Hose contains four wires to help prevent the buildup of static electricity for added safety.

OFOIL Series



Polyurethane Oil Transfer Hose

General Applications:

- Brackish and seawater
- Fluid transfer (see chemical chart)
- Fuels and oils transport

Construction:

Polyurethane (TPU) hose using an extruded through-the-weave process with circular woven high tenacity polyester reinforcement. Four electrical wires protected with a braided sheet of polyester to help prevent static build up.

Service Temperature Range:

-58°F (-50°C) to +122°F (+50°C); Intermittent service to +175°F (+79°C)

Available Colors:

Standard color is Tan – also available in NATO Green and Black via special order. Contact Kuriyama customer service for details.

- Unique Woven Construction Specially designed weave pattern provides resistance to snaking, kinking, stretching and twisting.
- Longer Lengths Manufactured in special 660 foot lengths to reduce possible leaking points.
- Smooth TPU Tube Provides low friction loss.
- Compact Design Flat hose design rolls up into tight coils for easy storage and transport, takes up less space than other hoses.
- MIL-Spec In compliance with PRF370 Type C.

Nomina	Nominal Specifications														
Series	Size		Hose ID		Wall	Working	Burst Pressure	Coil	Weight						
Number	(in)	(mm)	(in)	(mm)	Thickness (in)	Pressure (psi) at 68°F	(psi) at 68°F	Length (ft)	(lbs/ft)						
+0F0IL-200	2	50.8	2.059	52.3	0.087	150	600	660/200	0.26						
+0F0IL-250	2 1/2	63.5	2.650	67.3	0.087	150	600	660/200	0.35						
0F0IL-300	3	76.2	3.059	77.7	0.093	150	600	660/200	0.43						
+0F0IL-350	3 1/2	88.9	3.551	90.2	0.095	150	600	660/200	0.57						
0F0IL-400	4	101.6	4.059	103.1	0.106	150	600	660/200	0.67						
0F0IL-600	6	152.4	6.059	153.9	0.138	150	600	660/200	1.18						

+ NOTE: This is a non-stock product. Minimum order requirements may apply. Contact Kuriyama customer service for details.

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Mill Discharge Hoses



SJMD Series DJMD Series Single Jacket Double Jacket

"Contractor Grade" Hoses

General Applications:

- Construction pumps
- Plant clean-up
- Pump water discharge
- Wash down ships/factories

Construction:

Single or double jacket with 100% polyester yarn. Water and mildew-resistant cover, will not rot, even if the hose is stored wet.

Service Temperature Range:

-25°F (-31°C) to +185°F (+85°C)

Features & Advantages:

- Versatile Natural Rubber Tube Exhibits a good combination of strength and extreme flexibility for ease-of-use.
- Wide Service Temperature Range Hose may be used in a wide range of service temperature ranges from -25°F to +185°F.
- Double and Single Jacket Options –
 Available with a double jacket for additional external abrasion resistance.





- Identification Stripe Red stripe indicates single jacket version, blue stripe indicates double jacket version.
- Compact Design Flat hose design rolls up into tight coils for easy storage and transport, takes up less space than other hoses.
- Storage/Shipping Carton Hoses are individually packaged in cartons for ease of handling and shipping.

Nominal Specifications												
Series	Si	ize	Hose ID		Working	Burst	Coil	Coupling	Weight			
Number	(in)	(mm)	(in)	(mm)	Pressure (psi) at 68°F	Pressure (psi) at 68°F	Length (ft)	Bowl Size (in)	(lbs/ft)			
SJMD150	1 1/2	38.1	1.614	41.0	150	450	100/50	1 11/16	0.21			
SJMD200	2	50.8	2.126	54.0	150	450	100/50	2 1/4	0.28			
SJMD250	2 1/2	63.5	2.638	67.0	150	450	100/50	2 3/4	0.37			
SJMD300	3	76.2	3.150	80.0	150	450	100/50	3 1/4	0.45			
SJMD400	4	101.6	4.055	103.0	150	450	100/50	4 9/32	0.56			
DJMD150	1 1/2	38.1	1.575	40.0	200	600	100	1 13/16	0.25			
DJMD250	2 1/2	63.5	2.598	66.0	200	600	100	2 13/16	0.44			

Note: Not intended for use as a fire hose.

Mill Discharge Assemblies





DJ Series

Double Jacket "Contractor Grade"Coupled with Male and Female
Aluminum Rocker Lug Couplings

General Applications:

- Heavy duty equipment or pump rental
- Hydrant-to-truck water supply line
- Municipal washdown
- Ship deck washdown

Construction:

Double jacket with 100% polyester yarn. Water and mildew-resistant cover, will not rot, even if the hose is stored wet.

Service Temperature Range:

-25°F (-31°C) to +185°F (+85°C)

Features & Advantages:

- Versatile Natural Rubber Tube Exhibits a good combination of strength and extreme flexibility for ease-of-use.
- Wide Service Temperature Range Hose may be used in a wide range of service temperature ranges from -25°F to +185°F.
- Double Jacket Double jacket provides additional external abrasion resistance.
- Compact Design Flat hose design rolls up into tight coils for easy storage and transport, takes up less space than other hoses.
- Storage/Shipping Carton Hoses are individually packaged in cartons for ease of handling and shipping.

Nominal Specifications											
Part	Size		Length	Thusand Tumo	Max. Working	Weight Each					
Number	(in)			Thread Type	Pressure (psi) at 68°F	(lbs)					
DJ150NSTX50	1 1/2	38.1	50	NST	200	14					
DJ150NPSHX50	1 1/2	38.1	50	NPSH	200	14					
DJ250NSTX50	2 1/2	63.5	50	NST	200	23					
DJ250NPSHX50	2 1/2	63.5	50	NPSH	200	23					



Friction Loss of PVC Layflat Hose (psi/100 ft.)

GPM	1.5"	2"	2.5"	3"	4"	6"	8"	10"	12"	14"	16"
20	1.2										
30	2.4										
40	5.1	1.1									
50	6.0										
60		2.4	1.4								
80		4.1	1.9	1.0							
90	17.0										
100		6.0	2.8	1.2							
120				1.8							
140				2.2							
160				2.6	0.6						
180				3.3	0.7						
200		22	7		0.8						
220					1.0						
240					1.1		0.2				
250				5							
260					1.3	0.2					
280					1.4	0.2					
300					1.6	0.2					
340						0.3					
350			22			0.4					
380						0.4					
420						0.5					
460					4	0.6					
500					4	0.7					
540 580					22	0.8					
620						0.9					
660						1.0 1.1					
1,200						3.0					
1,250					22	3.0					
1,800							1.5				
							1.0	1.0			
2,500								1.0	0.0		
3,500									0.8		
3,630						22					
5,000							11			0.6	
6,000											0.4
8,000								8			
12,000									8		
15,000										5	
16,000											30

Friction Loss of Oroflex® Layflat Hoses in (psi/100 ft.)

ODM		4.414	4.4/0	10/4	•	0.4/0	0.0/4		0.4/0		4.4/0	_			40	40
GPM	1	1 1/4	1 1/2	1 3/4	2	2 1/2	2 3/4	3	3 1/2	4	4 1/2	5	6	8	10	12
1	0.04	0.01	0.01	0.04												
2	0.15	0.05	0.02	0.01	0.00	0.01	0.01									
5	0.82	0.28	0.11	0.05	0.03	0.01	0.01	0.04								
7	1.53 2.96	0.52	0.21	0.10	0.05	0.02	0.01	0.01	0.01						<u> </u>	
10 15	6.27	1.00	0.41	0.19	0.10	0.03		0.01	0.01	0.01						
20	10.67	3.60	0.87	0.41	0.21	0.07	0.05	0.03	0.01	0.01	0.01				<u> </u>	
25	16.13	5.44	1.48	0.70 1.06	0.36	0.12	0.08	0.05	0.02	0.01	0.01	0.01				
30	22.59	7.62	3.14	1.48	0.33	0.19	0.12	0.06	0.04	0.02	0.01	0.01				
35	30.05	10.14	4.17	1.40	1.03	0.26	0.10	0.11	0.03	0.03	0.01	0.01	0.00			
40	38.47	12.98	5.34	2.52	1.32	0.33	0.22	0.14	0.07	0.04	0.02	0.01	0.00			
45	47.84	16.14	6.64	3.13	1.64	0.44	0.25	0.10	0.03	0.04	0.03	0.02	0.01			
50	58.13	19.61	8.07	3.81	1.99	0.67	0.42	0.28	0.11	0.07	0.03	0.02	0.01			
60	81.45	27.48	11.31	5.34	2.79	0.94	0.59	0.39	0.18	0.10	0.05	0.02	0.01			
70	108.33	36.54	15.04	7.10	3.70	1.25	0.79	0.51	0.10	0.13	0.07	0.04	0.02	0.00		
80	100.00	46.78	19.25	9.09	4.74	1.60	1.01	0.66	0.31	0.16	0.09	0.05	0.02	0.01		
90		58.17	23.94	11.30	5.90	1.99	1.25	0.82	0.39	0.20	0.11	0.07	0.03	0.01		
100		70.69	29.09	13.73	7.17	2.42	1.52	0.99	0.47	0.25	0.14	0.08	0.03	0.01		
125		106.82	43.96	20.75	10.83	3.65	2.30	1.50	0.71	0.37	0.21	0.12	0.05	0.01		
150		100.02	61.59	29.07	15.17	5.12	3.22	2.11	0.99	0.52	0.29	0.18	0.07	0.02	0.01	
175			81.92	38.67	20.18	6.81	4.28	2.80	1.32	0.69	0.39	0.23	0.10	0.02	0.01	
200			104.87	49.50	25.84	8.71	5.48	3.59	1.69	0.88	0.50	0.30	0.12	0.03	0.01	
225				61.56	32.13	10.84	6.81	4.46	2.10	1.10	0.62	0.37	0.15	0.04	0.01	
250				74.60	39.04	13.17	8.28	5.42	2.56	1.33	0.75	0.45	0.19	0.05	0.02	
275				89.23	46.57	15.71	9.88	6.46	3.05	1.59	0.90	0.54	0.22	0.05	0.02	
300				104.81	54.70	18.45	11.60	7.59	3.58	1.87	1.05	0.63	0.26	0.06	0.02	
350					72.75	24.54	15.43	10.10	4.77	2.49	1.40	0.84	0.35	0.09	0.03	
400					93.14	31.42	19.75	12.93	6.10	3.18	1.79	1.07	0.44	0.11	0.04	
450						39.07	24.56	16.08	7.59	3.96	2.23	1.34	0.55	0.14	0.05	
500						47.47	29.84	19.54	9.22	4.81	2.71	1.62	0.67	0.16	0.06	0.02
600						66.52	41.82	27.37	12.92	6.74	3.80	2.27	0.94	0.23	0.08	0.03
700						88.47	55.62	36.41	17.18	8.97	5.05	3.03	1.24	0.31	0.10	0.04
800						113.26	71.20	46.61	22.00	11.48	6.47	3.87	1.59	0.39	0.13	0.05
1000							107.59	70.43	33.24	17.35	9.78	5.85	2.41	0.59	0.20	0.08
1200								98.68	46.58	24.31	13.70	8.20	3.37	0.83	0.28	0.12
1400								131.24	61.95	32.33	18.22	10.91	4.49	1.11	0.37	0.15
1600									79.31	41.39	23.32	13.96	5.75	1.42	0.48	0.20
1800									98.62	51.47	29.00	17.36	7.14	1.76	0.59	0.24
2000										62.55	35.24	21.10	8.68	2.14	0.72	0.30
2500										94.51	53.26	31.88	13.12	3.23	1.09	0.45
3000											74.62	44.67	18.38	4.53	1.53	0.63
3500											99.24	59.41	24.45	6.02	2.03	0.84
4000												76.06	31.30	7.71	2.60	1.07
4500												94.58	38.92	9.59	3.23	1.33
5000													47.30	11.65	3.93	1.62
5500													56.42	13.90	4.69	1.93
6000													66.27	16.33	5.51	2.27
6500													76.84	18.93	6.39	2.63
7000 7500													88.14 100.14	21.71	7.32 8.32	3.01 3.42
8000													100.14		-	
0000														27.80	9.38	3.86

Note: This calculations are theoretical and based on staight lines . Liquid is water at 20°C.

Recomended maximum velocity for constant work: 11.5 ft/s (3.5m/s).

Maximum recommended velocity for non constant work: 16.4 ft/s (5 m/s).

Values in red match with flows given 16.4 ft/s (5 m/s).

Vinylflow[®] Longitudinal Elongation Percentage (On Flat Ground Only)

Series Number	Pressure (psi)										
Oorioo Marrisor	10	20	30	40	50	60	70	80			
VF150	0.00	0.01	0.02	0.06	0.14	0.17	0.35	0.50			
VF200	0.01	0.03	0.04	0.15	0.32	0.38	0.61	0.84			
VF250	0.06	0.15	0.23	0.50	0.79	0.95	1.33	1.57			
VF300	0.03	0.14	0.21	0.34	0.63	0.76	1.10	-			
VF400	0.14	0.35	0.53	0.90	1.40	1.68	1.98	-			
VF600	0.14	0.42	0.63	1.08	1.35	-	-	-			
VF800	0.21	0.57	0.86	1.47	-	-	-	-			
VF1000	0.15	0.39	0.59	-	-	-	-	-			
VF1200	0.14	0.55	0.82	-	-	-	-	-			
VF1600	0.00	0.28	0.42	-	-	-	-	-			

Ironsides® Longitudinal Elongation Percentage (On Flat Ground Only)

Series							Pre	ssure (psi)						
Number	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
IS150	0.00	0.10	0.10	0.20	0.30	0.36	0.40	0.50	0.60	0.60	0.80	0.90	0.90	1.00	1.10
IS200	0.00	0.00	0.00	0.10	0.10	0.10	0.20	0.40	0.60	0.60	0.70	0.80	0.80	0.90	1.10
IS250	0.00	0.00	0.10	0.20	0.30	0.40	0.40	0.60	0.60	0.80	1.00	1.10	1.10	1.30	1.30
IS300	0.00	0.10	0.10	0.20	0.30	0.40	0.50	0.50	0.60	0.70	0.80	1.00	1.10	-	-
IS400	0.00	0.10	0.20	0.30	0.40	0.50	0.70	0.80	0.90	1.20	1.30	1.40	1.40	-	-
IS600	0.00	0.10	0.30	0.50	0.50	0.60	0.80	0.90	1.00	1.20	1	-	-	-	-
IS800	0.10	0.20	0.50	0.80	1.00	1.20	1.50	0.00	-	-	-	-	-	-	-

Vinylflow® EZ-Lite™ Longitudinal Elongation Percentage (On Flat Ground Only)

•									
Series Number	Pressure (psi)								
Octios Hallisci	10	20	30	40	50	60			
VFL150	0.00	0.10	0.20	0.30	0.40	0.60			
VFL200	0.00	0.20	0.30	0.60	0.80	-			
VFL300	0.20	0.40	0.80	1.20	-	-			
VFL400	0.20	0.50	1.40	1.90	-	-			
VFL600	0.00	0.40	0.80	1.40	-	-			
VFL800	0.20	0.80	1.60	2.20	-	-			
VF800	0.21	0.57	0.86	1.47	-	-			
VF1000	0.15	0.39	0.59	-	-	-			
VF1200	0.14	0.55	0.82	-	-	-			
VF1600	0.00	0.28	0.42	-	-	-			

Layflat Hose ID Size Guide

Hose ID	3/4	1	1-1/2	2	3	4	5	6	8	10	12	14	16
Hose Width When Flat	5/8	1-5/8	2-1/2	3-1/2	5	6-1/2	8	9-1/2	13	16	19	22	25

Vinylflow®, Vinylflow® **EZ-Lite Maximum Length Availability**

Series Number	Max. Available Length
VF150	1000
VF200	1000
VF250	800
VF300	800
VF400	750
VF600	700
VF800	650
VF1000	500
VF1200	500
VF1400	500
VF1600	500

Ironsides® Maximum For Sloped Ground, Add Length Availability

Series Number	Max. Available Length
IS150	700
IS200	650
IS250	600
IS300	550
IS400	500
IS600	450
IS800	450
IS1000	450

Head Pressure Shown Below

Hose	Slope Angle	Additional Head Pressure
	5°	11
Vinylflow®	10°	23
VinyIflow®	15°	34
EZ-Lite™	20°	44
Vinylgreen™	25°	55
Ironsides®	30°	65
Tuffsides™	35°	75
	40°	83



Layflat Hose Material Properties

Product Name	Series	Tube Material	General Applications	Overall Durability	Drag Application Suitability	Water	Liquid Manure
Vinylflow® EZ-Lite™	VFL	PVC	Water transfer	Standard	Limited	Excellent	Limited
Vinylflow®	VFL	PVC	Water transfer & drip irrigation	Standard	Limited	Excellent	Limited
Vinylgreen™	VG	PVC	Water transfer & drip irrigation	Standard	Limited	Excellent	Limited
Tuffsides [™]	TS	PVC	Water transfer	Good	Limited	Excellent	Limited
Ironsides™	IS	PVC	Water transfer and mining applicaions	Good	Limited	Excellent	Limited
PVC Layflat Assemblies	LF & LFR	PVC	Water transfer Standard Recommended		Not Recommended	Excellent	Not Recommended
OROFLEX® 10	0F10	PVC/NBR	Water	Very Good	Limited	Excellent	Excellent
OROFLEX® 20	0F20B & 0F20Y	PVC/NBR	Water & liquid manure transfer	Excellent	Good	Excellent	Excellent
OROFLEX® Drag	OFDG	TPU	Manure spreaders	Excellent	Excellent	Excellent	Excellent
OROFLEX® Bandama	BD	PVC/NBR	Traveling irrigators	Excellent	Very Good	Excellent	Excellent
OROFLEX® Aqua	OFAQ	Polyurethane	Water Bypass	Excellent	Very Good	Excellent	Excellent
OROFLEX® Terrain	OFTR	Polyurethane	Frac Water Transfer	Excellent	Very Good	Excellent	Excellent
OROFLEX® Oil	0F0IL	Polyurethane	Military Oil Transfer	Excellent	Very Good	Excellent	Excellent
Mill Discharge Hose	SJMD & DJMD	Rubber/ Polyester	Water transfer	Standard	Not Recommended	Excellent	Not Recommended
Mill Discharge Assemblies	DJ	Rubber/ Polyester	Water transfer	Standard	Not Recommended	Excellent	Not Recommended



Chemical Resistance Chart

K	Α	Fluid has little or no effect	С	Fluid has severe effect	Χ	No data-likely to have severe effect
Y	В	Fluid has minor to moderate effect	Т	No data-likely to have minor effect	ı	No data

		CONDITI	ONS	TPU				
NAME	%	°C	HOURS	POLYETHER Polyurethane	NBR	PVC	BRASS	ALUMINUM
Acetaldehyde	40	21	1000	С	Х	Х	Α	Α
Acetamide	50	21	1000		В	-	-	-
Acethylene		21	1000					
Acetic acid	20	21	1000	С	Х	Α	Х	В
Acetic acid	5	21	1000	С	Х	Α		
Acetic acid	5	100	10					
Acetic acid	98					С		
Acetic acid, glacial		38	1000				-	-
Acetic anhydride			1000				-	-
Acetone		21	10000		Х	Х	А	А
Acetone			1000	С	Х			
Acetone		21	1000		Х	С		
Alcohol			1000					
Allyl alcohol			1000		-	Х	-	-
Aluminium chloride	5	60	168	В	-	-		
Aluminium chloride solutions					Α	-	Х	Х
Aluminium salts				В	Α	Α	-	В
Aluminium sulfate solutions				В	А	-	Х	X
Alums								
Ammonia				В	Х	Α	-	-
Ammonia	28	21	1000			А	Х	-
Ammonium chloride solutions	10				В	Α	Х	-
Ammonium hydroxide	2	21	10000	А	В	Х	Х	-
Ammonium hydroxide solutions					-	-	Х	-
Ammonium salts				В				
Ammonium sulfate solutions				В				
Amyl acetate				С	Х	Х	А	Х
Amyl alcohol				С	В	В	А	A
Aniline		21	10000	С	Х	-	Х	В
Aniseed oil								
Asphalt					В	Х	А	-
ASTM oil No.1		149		В	Α	В	А	Α
ASTM Oil No.3		149		В	Α	Х	Α	Α
ASTM reference Fuel A		70		В	Α	В	А	А
ASTM reference Fuel B		70		В	A	Х	A	А
ASTM reference Fuel C		70		С	В	Х	А	-
ASTM reference Fuel C								
Barium hydroxide solutions				В	А	Х	-	-
Beer					-	-	-	-
Benzaldehyde				С	Х	Х	-	А
Benzene		21	1000	С	В	Х	А	Α
Benzoic acid	3	100	10				-	-
Benzoic acid	3	100	10	С	Х	Х		
Benzole								
Benzyl alcohol					Х	Α	-	-



Chemical Resistance Chart (continued)

		CONDITION	ONS	TPU				
NAME	%	°C	HOURS	POLYETHER POLYURETHANE	NBR	PVC	BRASS	ALUMINUM
Bitumen								
Bleaching lye		21	288					
Borax solutions					Α	А	В	-
Boric acid solutions	10			В	Α	А	Х	Α
Brandy				_				
Bromine,anhydrous liquid				В	Х	Х	Α	А
Butane		21	1000		X	X		7.
Butanol	1	21	10000		A	A	А	Α
Butter			10000		-	-	-	-
Butter milk								
Butyl acetate		21	10000				А	Α
Butyl acetate			10000	С	Х	A		Α
Butyl alcohol				В	A	A	А	A
Butylene glycol				D				-
Butyraldehyde					Х	_	A	_
Butyric acid					_	A	В	_
Calcium chloride		21	10000	В			В	A
	10	21	10000	D	A	A		-
Calcium chloride solutions	10			D	A	А	- V	- V
Calcium hydroxide solutions				В	В	-	Х	Х
Calcium hypochlorite	5	00	1000		-	В	-	-
Calcium hypochlorite		60	1000		-	В		
Camphor								
Carbon bisulfide								
Carbon Dioxide				A	A	A	A	A
Carbon disulphide		21	1000	В	В	Х	В	В
Carbon monoxide					В	Α	Α	Α
Carbon tetrachloride		21	1000	С	Χ	X	В	X
Carbon tetrachloride								
Castor oil				В	Α	Α	А	A
Catechol	6							
Caustic soda	40				Х	Χ	-	-
Chloric Acid 35%						Α		
Chlorine gas,dry				В			-	-
Chlorine gas,wet					Χ	Χ		
Chlorine water					-	Х	-	-
Chloroacetic acid				С	В	-	-	-
Chlorobenzene					Х	Х	А	A
Chloroform		21	1000	С	Х	Х	Α	А
Chloromic acid	40	80	1000	С				
Chlorosulfonic acid					Х	Х	-	-
CELLOSOLVE Acetate					Х	А	-	-
Citric acid	10	80	1000	В	Х	A	Х	А
Copper chloride solutions					В	A	X	-
Copper salts	10					-,		
Copper Sulfate solutions	"				Α	A	Х	Х
Cotton seed oil		21	1000	В	В	-	A	A
Creosote oil			1000		В	Х	X	A
Cresol		21	10000	С	X	-	-	A
Cupric sulphate		21	10000	В	A	A	X	X
Cyclohexane		_ Z1	10000	Disolve	В	X	A	-
Cyclohexanol				אוטטוער	В	X	- A	
Cyclonexallul					D		<u>-</u>	-



Chemical Resistance Chart (continued)

NAME	E
Decalin	B - A - A A A A A A A A A A A A A A A A
Decalin	B - A - A A A A A A A A A A A A A A A A
Dibutyl Phthalate 30 1000 C X A A A A A Diesel oil C C C C C C C C C	X A A A A A A A A A A A A A A A A A A A
Diesel oil	A C A A A A A A A A A A A A A A A A A A
Diesel fuel	A C A A A A A A A A A A A A A A A A A A
Diethyl ether 21 10000 X B A A Diethyl sebacate X X X A - Dimethyl formamide Disolve - - - Dimethyl Phthalate X - - - Dioctyl Phthalate A A A A Dioxane 21 1000 X X X A A Epichlorohydrin -	X X A - X - X A A A X X A A A A B B B A A B B B A A X X A A A A
Diethyl sebacate X X A - Dimethyl formamide Disolve - - - Dimethyl Phthalate X - - - Dioxane 21 1000 X X X A A A Epichlorohydrin -	X X A - X - X A A A X X A A A A B B B A A B B B A A X X A A A A
Dimethyl formamide	X A A A A A A A A A A A A A A A A A
Dimethyl Phthalate	A A A A A A A A A A A A A A A A A A A
Dioctyl Phthalate A A Dioxane 21 1000 X X A A Epichlorohydrin -	A A A A A A A A A A A A A A A A A A A
Dioxane 21 1000 X X X A A Epichlorohydrin - <td>X X A A A A A A B B B A A A A A A A A A</td>	X X A A A A A A B B B A A A A A A A A A
Epichlorohydrin -	
Ethanol 21 10000 A B B A Ether B B B B B A A Ethyl acetate C X X X A A Ethyl Alcohol B A B B A Ethyl chloride C X X X B A Ethylene dichloride 21 10000 X X X - - Ethylene glicol 21 10000 B A A A A Ethylene oxide C X X X - - -	A B B A A A A A A A A A A A A A A A A A
Ether B B B A A Ethyl acetate 21 1000 C X X A A Ethyl acetate B A B B A B B A A B B A A B B A A B A A B A A A B A	B B A A X X A A A B B A X X B A X X - -
Ethyl acetate 21 1000 C X X A A Ethyl acetate	X X A A A B B A A X X B A X X
Ethyl acetate B A B B A Ethyl Alcohol B A B B A Ethyl chloride C X X X B A Ethylene dichloride 21 1000 X X X - - Ethylene glicol 21 10000 B A A A A Ethylene oxide <	A B B A A X X B A X X X
Ethyl Alcohol B A B B A Ethyl chloride C X X X B A Ethylene dichloride 21 1000 X X X - - Ethylene glicol 21 10000 B A A A A Ethylene oxide </td <td>X X B A X X</td>	X X B A X X
Ethyl chloride C X X B A Ethylene dichloride 21 1000 X X X - - Ethylene glicol 21 10000 B A A A A Ethylene oxide Image: Control oxide oxide Image: Control oxide	X X B A X X
Ethylene dichloride 21 1000 X X X Ethylene glicol 21 10000 B A A A A Ethylene oxide	Х Х
Ethylene glicol 21 10000 B A A A A Ethylene oxide	
Ethylene oxide	
Tremic children 1 3 1 100 1 10 1 B 1 B 1 A 1 X 1 X	D A V V
	B A X X
Ferric chloride 21 10000 B	
Ferric chloride solutions B A X X	
Fluosilicic acid X X - A	
Formaldehyde 30 21 10000 B A B	
Formic acid 40 C - X	
Formic Acid B -	В -
Formic Acid 5 21 1000	
Formic Acid 5 100 10	
Freon 11	
Freon 113 55 X X	XXX
Freon 114	
Freon 12 X X	X X
Freon II 21 1000	
Fuel oil B A X A A	
Gasoline B B C A A	
Glue B A X A	
Glycerin B A A A A	
Glycerol 60 1000 A A A A	A A A
Glycol B A -	
Heptane 21 1000 A B A A	
Hexane 60 1000 B A X A -	
Hydrazine C X X	X X
Hydrochloric acid 10 21 10 C	
Hydrochloric acid 20 B X	B X
Hydrochloric acid 10 21 20000	
Hydrochloric acid 1 C	
Hydrochloric acid 37 - X X X	- X X X
Hydrocyanic acid	
Hydrofluoric acid 48 X X X X	X X X X



Chemical Resistance Chart (continued)

		CONDITIO	ONS	TPU				
NAME	%	°C	HOURS	POLYETHER Polyurethane	NBR	PVC	BRASS	ALUMINUM
Hydrofluoric acid	75			С				
Hydrogen				Α	Χ	Χ	-	-
Hydrogen peroxide	30			В	В	Α	Х	A
Hydrogen peroxide	3	70	10					
Hydrogen peroxide	3	21	10					
Hydrogen sulfide				С	Х	Х	-	А
Iron salts	20				Α	А	-	-
Isooctane				В	Α	Х	А	-
Isopropanol		60	1000	В	Α	В	В	Α
Isopropyl alcohol					Α	В	В	А
JP-4 Jet Fuel				С	Α	Χ	Α	В
Kerosene				В	В	С	Α	А
Kerosene		21	1000					
Lacquer solvents			ĺ					
Lactic acid	50			В	Α	-	В	Х
Lactic acid	90	21	10000		-	-	В	Х
Linseed oil				В	В	А	В	А
Lithium grease		100						
Lubricating oil				В	В	-	В	А
Magnesium chloride solutions					-	-		7.
Magnesium hydroxide								
solutions					-	-	-	X
Maleic acid	25	21	10000	С	Х	Х	_	_
Mercuric chloride solutions	20	21	10000	0	В	В	X	Х
Mercury				A	В	A	X	X
Methanol		21	1000	Α	A	В	В	A
Methyl alcohol		21	1000		A	В	В	A
Methyl ethyl ketone		21	10000	С	X	Х	A	A
Methyl ethyl ketone		21	10000	U	^	^	A	A
Methyl isobutyl ketone					Х	Х	-	-
Methylene chloride		21	1000	C	X	X	A	X
Mineral oils		80	1000	В				
		00	1000	В	A B	A X	A	A B
Naphtha				D			A	
Naphthalene Niekal aakta				0	-	- D	A	А
Nickel salts	70			C C	A	В	- X	-
Nitric acid	70			L C	X	X		-
Nitric acid	30				X	X	X	-
Nitric acid	60	01	00000	0	X	X	X	-
Nitric acid	10	21	20000	С	X	X	Х	-
Nitric acid, red fuming					Х	Х	-	-
Nitrobenzene				С	Х	Х	Α	A
Nitromethane					Х	Х	А	-
Octane					-	-	-	-
Oleic acid				В	В	В	В	A
Oleic acid	100	80	1000					
Oleum	20/25				Х	Х	-	-
Olive oils		80	1000		В	В	В	Α
Oxalic acid	5	100	10	А	-	X	Х	В
Palmitic acid					В	-	Х	Α
Paraffin oil					А	-	А	-
Perchloroethane								



Chemical Resistance Chart (continued)

NAME	CONDITIONS			TPU				
	%	°C	HOURS	POLYETHER POLYURETHANE	NBR	PVC	BRASS	ALUMINUM
Perchloroethylene		120	10	С	Х	Х	Χ	-
Perchloroethylene		100	10					
Perchloroethylene	İ							
Petrol	Ì	21	1000					
Petroleum				В				
Phenol	İ	21	10000	С	Х	Х	Х	В
Phenol		93	10					
Phenol	i i							
Phenyl etyl alcohol	İ							
Phosphoric acid	85	21	10000	В	Х	Α	Х	Х
Phosphoric acid	10	21	10			A		
Pickling solution	20				-	-		
Plasticizers	1							
Potassium bromide	10				-	Α	-	-
Potassium chloride	1 10	21	10000	В	_	A	_	_
Potassium Dichromate		21	10000	В				
solutions					-	Α	-	-
Potassium hydroxide	10	21	100				_	-
Potassium hydroxide	0,1	21	500		В	Α		-
Potassium iodide	10		300		A	A	-	-
Potassium nitrate	10			В	-	A		-
Potassium permanganate	1			D	_	X	_	_
Potassium permanganate	50	21	1000		-	^		-
Potassium sulphate	1 30	21	1000		-	A	_	-
Propane Propane				В	X	X	-	_
Propanol				D	-	B		
Pydraul 312					X	Х	-	-
		01	10000			X		-
Pyridine		21 21	10000		-	X	A	A
Pyridine		21	1000					
Pyridine	10	0.4	1000					
Resorcinol	10	21	1000	D				
SAE 10 oil				В				
Salicylic acid					Х	A	-	В
Salt								
Sea Water			1000	В	В	A	В	-
Silicone fluids	<u> </u>	80	1000					
Silicone Grease					В	В	Α	-
Silver salts				В				
SKYDROL 500B				_				
Soap	1	120	10	В	Α	В	-	-
Sodium bicarbonate	10	80	1000	В	A	Α	В	-
Sodium bisulphite	1	100	10	В	Α	А	-	-
Sodium bromide								
Sodium carbonate	1	120	10	В	Α	Α	В	X
Sodium chloride	0,7	100	10	В			Х	X
Sodium chloride	20	80	1000	В	Α	Α		
Sodium dichromate	20			В	Α	Α	-	-
Sodium hydroxide	1	100	100			Α	-	-
Sodium hydroxide	0,1	21	10000	В		Α		
Sodium hydroxide	20					Α		
Sodium hypochlorite	0,4	70	10					



Chemical Resistance Chart (continued)

NAME	CONDITIONS			TPU				
	%	°C	HOURS	POLYETHER POLYURETHANE	NBR	PVC	BRASS	ALUMINUM
Sodium hypochlorite	5				Х	А	Х	Х
Sodium nitrate	10			В	Х		В	В
Sodium perborate	1	100	10		Х	А	Χ	А
Sodium phosohate	10				-	Α	Χ	Х
Sodium sulphate		21	10000	В	Α	Α	-	-
Sodium sulphate	10	21	20000					
Sodium sulphide				В	Α	Α	-	-
Sodium sulphite					В	Α		
Sodium thiosulphide								
Soybean oil					В	В	-	-
Stannouschloride	15				Α	А	-	-
Steam		100		С	Х	Х	-	-
Stearic acid					В	A	Х	Х
Styrene				В	X	-	В	X
Sulfur dioxide gas				A	X	-	-	-
Sulfur dioxide liquid				Λ.	X	Х	-	-
Sulfuric acid fuming oleum	20			С	X	X	-	-
Sulfuric acid, above	50			0	Λ	Λ		
Sulfuric acid up to	50							
Sulfuric acid above	50					Х		
Sulfurous acid] 30				Х			
Sulfur, molten								
Sulphuric acid	10	21	10		Х	A		
Sulphuric acid	30	80	1000		X	- A		
Tannic acid	10	00	1000		X	A	Х	В
Tartaric acid	10			В	X	В	Λ	D
		21	500	D	X	Х		
Tetrahydrofuran	<u> </u>	21	300		Λ	Λ	-	-
Tetrahydrofuran					V			
Tetraline		01	1000	0	X	- V	-	-
Toluene		21	1000	С	Х	Х	A	А
Toluene					V			V
Tributyl phosphate					X	-	-	Х
Trichlorethane		01	10000		Х	Х	-	- V
Trichloroethylene		21	10000	0	V		A	Х
Trichloroethylene	l			С	Х	-		
Triethanolamine					В	В	A	-
Trisodium phosphate solution				В	В	-	-	-
Tung oil		0.1	10000		В	В	A	A
Turpentine		21	10000	В	В	А	В	-
Urea	20			В	В	-	-	-
Vaseline		80	1000					
Vegetable oils		80	1000	В	-	В	-	А
Water		100		В				
Water		70		В				
Water		23		A	Α	Α	А	А
White spirit		21	1000			С	А	Α
Xylene				С	Х	С	-	-
Xylene		60	1000					
Zinc chloride	3	100	10	В				
Zinc chloride solutions				В	В	В	X	Х

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