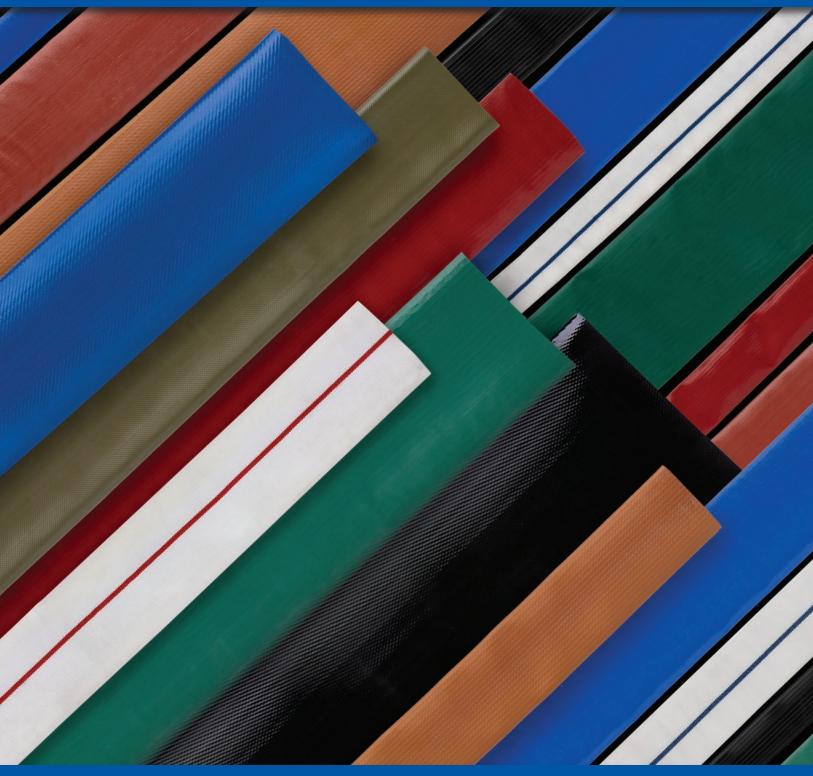


Kuriyama Layflat Hose and Accessories





Kuriyama of America, Inc.





Layflat Hose Product Selection Chart



CATEGORY		PVC/Ni	itrile						
CATALOG PAGE	7	5	6	8	9	10	11	12	14
PRODUCT	Vinylflow®	VinyIflow® 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	Compressed Air Industrial
3/4"		100 psi							483 psi
1"		85 psi							556 psi
1 1/4"		85 psi							
1 1/2"	80 psi	65 psi	80 psi	145 psi	150 psi	70 psi	140 psi	203 psi	305 psi
2"	80 psi	65 psi	80 psi	145 psi	150 psi	65 psi	128 psi	203 psi	302 psi
2 1/2"	80 psi				150 psi			203 psi	
3"	70 psi	60 psi	70 psi	145 psi	150 psi	60 psi	125 psi	174 psi	261 psi
3 1/2"									
4"	70 psi	60 psi	70 psi	120 psi	125 psi	50 psi	125 psi	174 psi	302 psi
4 1/2"									
5"	40 psi							174 psi	
5 1/2"								174 psi	
6"	50 psi	40 psi	50 psi	115 psi	115 psi			174 psi	290 psi
7"	45 psi								
8"	35 psi	40 psi	45 psi	70 psi	70 psi			174 psi	
10"	30 psi				65 psi			174 psi	
12"	30 psi							116 psi	
16"	30 psi								
STOCK LENGTHS	100, 300	50,300	300	300	100, 300	50	50	50, 100, 200	50, 100, 200

NOTE: OR = On Request



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"				200 psi		142 psi	150 psi		
2 1/2"		290 psi		200 psi		142 psi	150 psi	200 psi	200 psi
3"		261 psi		200 psi		142 psi	150 psi		
3 1/2"		232 psi				142 psi			
4"		202 psi		200 psi	246 psi	142 psi	150 psi		
4 1/2"		174 psi			203 psi				
5"		174 psi			203 psi				
5 1/2"					174 psi				
6"	290 psi	174 psi		200 psi	174 psi	142 psi			
7"	232 psi								
8"	212 psi		203 psi						
10"	212 psi		203 psi						
12"	157 psi		174 psi						
16"									
STOCK LENGTHS	660	660	660	200, 660	660	OR	50, 100	100	50

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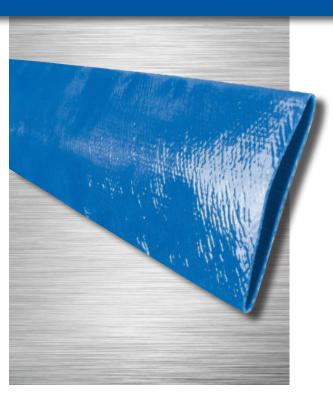
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Layflat Hoses, Couplings and Accessories by Series/Part Number

Series/Part	Page	Series/Part	Page	Series/Part	Page
ABF-LF	11	LF	10	OFTR	18
ABM-LF	11	LFR	10	SJMD	20
AL-CLF	11	0F10	12	TS	8
AL-ELF	11	0F20B	15	VF	7
BD	13	0F20Y	14	VFL	5
DJ	21	OFAQ	16	VG	6
DJMD	20	OFDG	17		
IS	9	OFOIL	19		

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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	Nominal Specifications											
Series	Size		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)			
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:

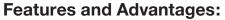
- Agriculture
- Construction
- Drip irrigation
- Industrial

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.

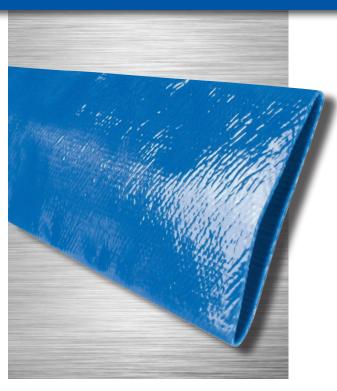


- PVC Cores Hoses coiled around durable PVC cores providing for easy unwinding.
- Compact Design Flat hose design rolls up into tight coils for easy storage and transport, takes up less space than other hoses.

Nominal Specifications											
Series	Size		Hose ID		Wall	Working	Burst	Coil	Weight		
Number	(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		

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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	Size		Hose ID		Wall	Working Pressure	Burst	Coil	Weight		
Number	(in)	(mm)	(in)	(mm)	Thickness (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)



- **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.

Nomina	Nominal Specifications												
Series	Size		Hose ID		Wall	Working	Burst	Coil	Weight				
Number	(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.

Nomina	Nominal Specifications												
Series	Size		Hose ID		Wall	Working	Burst	Coil	Weight				
Number	(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				





Nominal Specifications										
Part	Size		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	Size		Wall	Working	Coil	Weight				
	Number	(in)	(mm)	Thickness (in)	Pressure (psi) at 68°F	Length (ft)	(ea/lbs)				
I	FR150APLX50	1 1/2	38.1	0.079	140	50	13.50				
I	FR200APLX50	2	50.8	0.079	128	50	18.00				
I	FR300APLX50	3	76.2	0.098	125	50	28.00				
I	FR400APLX50	4	101.6	0.110	125	50	40.50				

Hose Ends: Aluminum pin lug couplings male and female



Nominal Specifications										
Part	Size		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
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

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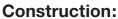
OROFLEX® 10



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



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.
- 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.





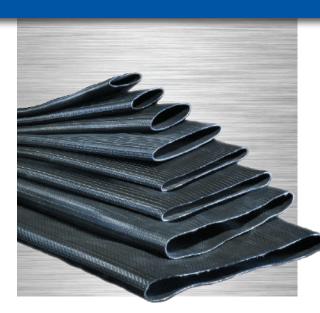




Nomi	Nominal Specifications											
	Si	Size		e ID	Wall	Working	Burst		Tensile			
Series Number	(in)	(mm)	(in)	(mm)	, ()	Pressure (psi) at 68°F	Pressure (psi) at 68°F	Coil Length (ft)	Strength (lbs)	Weight (lbs/ft)		
0F10-150	1 1/2	38.1	1.520	38.6	0.070	203	609	200	5,000	0.20		
0F10-200	2	50.8	2.110	53.6	0.070	203	609	200	6,500	0.27		
0F10-250	2 1/2	63.5	2.590	65.8	0.090	203	609	200	11,300	0.38		
0F10-300	3	76.2	3.181	80.8	0.090	174	464	200/100	11,750	0.48		
0F10-400	4	101.6	4.200	106.7	0.090	174	435	200/100/50	17,400	0.71		
0F10-500	5	127.0	5.020	127.5	0.100	174	435	200	20,650	0.94		
0F10-600	6	152.4	6.098	154.9	0.120	174	435	200/100/50	36,000	1.08		
0F10-800	8	203.2	8.051	204.5	0.130	174	362	100/50	51,950	1.85		
0F10-1000	10	254.0	10.000	254.0	0.150	174	348	100/50	103,950	2.62		
0F10-1200	12	304.8	12.000	304.8	0.150	116	348	100/50	103,950	2.86		



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											
Carrian	S	ize	Hose ID		Wall	Working	Burst	Coil	Tensile	Mainb4		
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)		
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	261	653	660	18,475	0.67		
BD350	3 1/2	88.9	3.543	90.0	0.130	232	580	660	20,503	0.77		
BD400	4	101.6	4.067	103.3	0.130	202	507	660	22,046	0.94		
BD450	4 1/2	114.3	4.626	117.5	0.130	174	435	660	25,353	1.08		
BD500	5	127.0	5.020	127.5	0.140	174	435	660	27,161	1.21		
BD600	6	152.4	6.043	153.5	0.140	174	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:

-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.
- Compact Design Flat hose design rolls up into tight coils for easy storage and transport, takes up less space than other hoses.







Nomina	ıl Sp	ecif	icati	ons						
	Size		Hos	e ID	Wall	Working	Burst	Coil	Tensile	
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)
0F20Y-075	3/4	19.1	0.866	22.0	0.080	483	1450	200/50	3,300	0.13
0F20Y-100	1	25.4	1.075	27.3	0.080	556	1668	200/50	4,150	0.17
0F20Y-150	1 1/2	38.1	1.555	39.5	0.110	305	914	200	6,600	0.30
0F20Y-200	2	50.8	2.106	53.5	0.120	302	754	200	8,250	0.43
0F20Y-300	3	76.2	3.031	77.0	0.120	261	653	200	18,750	0.61
0F20Y-400	4	101.6	4.035	102.5	0.120	302	754	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



OF20B Series Heavy Duty PVC/Nitrile Rubber Discharge Hose

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.

Nomin	al Sp	oecifi	catio	ns						
	Size		Hose ID		Wall	Working	Burst	Coil	Tensile	
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)
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	232	580	660	66,150	1.88
0F20B-800	8	203.2	8.091	205.5	0.150	212	508	660	77,150	2.22
0F20B-1000	10	254.0	10.059	255.5	0.150	212	508	660	110,250	2.65
0F20B-1200	12	304.8	12.087	307.0	0.160	157	377	660	101,400	3.43

OROFLEX® AQUA



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°F (-50°C) to +122°F (+50°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.

Nomin	Nominal Specifications											
Series	Si	ze	Hos	e ID	Wall	Working	Burst	Coil	Weight			
Number	(in)	(mm)	(in)	(mm)	Thickness (in)	Pressure (psi) at 68°F	Pressure (psi) at 68°F	Length (ft)	(lbs/ft)			
0FAQ-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			
0FAQ-200	2	50.8	2.059	52.3	0.087	200	600	660, 200	0.26			
0FAQ-250	2 1/2	63.5	2.618	66.5	0.087	200	600	660, 200	0.34			
0FAQ-300	3	76.2	3.059	77.7	0.093	200	600	660, 200	0.57			
0FAQ-400	4	101.6	4.059	103.1	0.106	200	600	660, 200	0.66			
0FAQ-600	6	152.4	6.020	152.9	0.138	200	600	660, 200	1.24			

NOTE: Other sizes available. Contact Kuriyama customer service for details.



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 +122°F (+50°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.

Nomin	Nominal Specifications											
	Size		Size		Hos	e ID	Wall	Working	Burst	Coil	Tensile	
Series Number	(in)	(mm)	(in)	(mm)	Thickness (in)	Pressure (psi) at 68°F	Pressure (psi) at 68°F		Strength (lbs)	Weight (lbs/ft)		
+0FDG-400	4	101.6	4.110	104.4	0.140	246	609	660	28,900	0.87		
+0FDG-450	4 1/2	114.3	4.598	116.8	0.140	203	507	660	35,300	0.94		
0FDG-500	5	127.0	5.020	127.5	0.150	203	507	660	39,700	1.14		
0FDG-550	5 1/2	139.7	5.571	141.5	0.150	174	435	660	44,100	1.28		
0FDG-600	6	152.4	6.003	152.5	0.150	174	435	660	55,100	1.28		

⁺ 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

Construction:

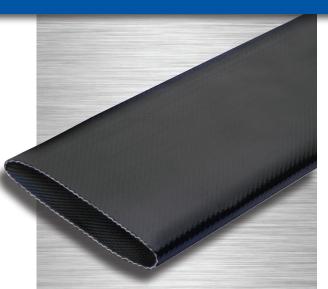
Black polyurethane (TPU) hose using an extruded through-the-weave process with circular woven high tenacity polyester reinforcement.

Service Temperature Range:

-58°F (-50°C) to +122°F (+50°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											
	S	ize	Hos	e ID	Wall	Working	Burst	Coil	Tensile		
Series Number	(in)	(mm)	(in)	(mm)	Thickness	Pressure (psi) at 68°F	Pressure (psi) at 68°F	Length (ft)	Strength (lbs)	Weight (lbs/ft)	
0FTR-800	8	203.2	8.098	205.7	0.165	203	600	660	81,571	2.08	
0FTR-1000	10	254.0	10.098	256.5	0.169	203	500	660	100,310	2.76	
0FTR-1200	12	304.8	12.098	307.3	0.185	174	435	660	121,254	3.43	



OROFLEX° OIL



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)





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.
- 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.

Available Colors:

NATO Green, Tan, Black

Nomina	Nominal Specifications												
Series	Series Si		Hos	e 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	142	597	50 to 660	0.26				
0F0IL-250	2 1/2	63.5	2.650	67.3	0.087	142	597	50 to 660	0.34				
0F0IL-300	3	76.2	3.059	77.7	0.093	142	597	50 to 660	0.43				
0F0IL-350	3 1/2	88.9	3.551	90.2	0.095	142	597	50 to 660	0.57				
0F0IL-400	4	101.6	4.059	103.1	0.106	142	597	50 to 660	0.66				
0F0IL-600	6	152.4	6.059	153.9	1.380	142	597	50 to 660	1.24				

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.

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	S	Size		e 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	100/50	1 13/16	0.25		
DJMD250	2 1/2	63.5	2.598	66.0	200	600	100/50	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	Throad Tuno	Max. Working	Weight Each				
Number	(in)	(mm)	(fť)	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	4.0						
260					1.3	0.2					
280					1.4	0.2					
300					1.6	0.2					
340			00			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					\vdash
620						0.9 1.0					
660						1.1					
1,200						3.0					
1,250					22	3.0					
1,800							1.5				
2,500							1.0	1.0			
3,500								1.0	0.8		
3,630						22			0.0		
5,000						LL	11			0.6	
6,000							.,			0.0	0.4
8,000								8			0.1
12,000									8		
15,000										5	
16,000											30

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

GPM	1	1 1/4	1 1/2	1 3/4	2	2 1/2	3	3 1/2	4	4 1/2	5	6	8	10	12
1	0.04														
2	0.15	0.05	0.02												
5	0.82	0.28	0.11	0.05	0.03										
7	1.53	0.52	0.21	0.10	0.05	0.02									
10	2.96	1.00	0.41	0.19	0.10	0.03	0.02								
15	6.27	2.11	0.87	0.41	0.21	0.07	0.05	0.03							
20	10.67	3.60	1.48	0.70	0.36	0.12	0.08	0.05							
25	16.13	5.44	2.24	1.06	0.55	0.19	0.12	0.08	0.04						
30	22.59	7.62	3.14	1.48	0.77	0.26	0.16	0.11	0.05	0.03					
35	30.05	10.14	4.17	1.97	1.03	0.35	0.22	0.14	0.07	0.04					
40	38.47	12.98	5.34	2.52	1.32	0.44	0.28	0.18	0.09	0.04					
45	47.84	16.14	6.64	3.13	1.64	0.55	0.35	0.23	0.11	0.06	0.03				
50	58.13	19.61	8.07	3.81	1.99	0.67	0.42	0.28	0.13	0.07	0.04				
60		27.48	11.31	5.34	2.79	0.94	0.59	0.39	0.18	0.10	0.05				
70		36.54	15.04	7.10	3.70	1.25	0.79	0.51	0.24	0.13	0.07	0.04			
80			19.25	9.09	4.74	1.60	1.01	0.66	0.31	0.16	0.09	0.05			
90			23.94	11.30	5.90	1.99	1.25	0.82	0.39	0.20	0.11	0.07			
100				13.73	7.17	2.42	1.52	0.99	0.47	0.25	0.14	0.08			
125				20.75	10.83	3.65	2.30	1.50	0.71	0.37	0.21	0.12	0.05		
150					15.17	5.12	3.22	2.11	0.99	0.52	0.29	0.18	0.07		
175				i	20.18	6.81	4.28	2.80	1.32	0.69	0.39	0.23	0.10		
200				İ	25.84	8.71	5.48	3.59	1.69	0.88	0.50	0.30	0.12		
225				İ	32.13	10.84	6.81	4.46	2.10	1.10	0.62	0.37	0.15		
250				İ		13.17	8.28	5.42	2.56	1.33	0.75	0.45	0.19		
275						15.71	9.88	6.46	3.05	1.59	0.90	0.54	0.22	0.05	
300							11.60	7.59	3.58	1.87	1.05	0.63	0.26	0.06	
350							15.43	10.10	4.77	2.49	1.40	0.84	0.35	0.09	
400							10110	12.93	6.10	3.18	1.79	1.07	0.44	0.11	
450								16.08	7.59	3.96	2.23	1.34	0.55	0.14	
500								19.54	9.22	4.81	2.71	1.62	0.67	0.16	0.06
600								10.01	12.92	6.74	3.80	2.27	0.94	0.23	0.08
700									17.18	8.97	5.05	3.03	1.24	0.20	0.10
800									17.10	11.48	6.47	3.87	1.59	0.39	0.13
1000										17.35	9.78	5.85	2.41	0.59	0.10
1200										17.00	13.70	8.20	3.37	0.83	0.28
1400											10.70	10.91	4.49	1.11	0.20
1600												13.96	5.75	1.42	0.37
1800												10.80	7.14	1.76	0.40
2000													8.68	2.14	0.39
2500													13.12	3.23	1.09
3000													10.12	4.53	1.53
3500														6.02	2.03
4000														7.71	2.60
4500														1.11	3.23
															3.23
5000															
5500															4.69
6000															5.51
6500															6.39
7000															7.32
7500															8.32
8000															9.38

 $\textbf{Note:} \ \ \text{This calculations are theoretical and based on staight lines} \ . \ \ \text{Liquid is water at 20°C}.$

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)

<u> </u>														
Series Number				Pressu	re (psi)			80 0.50 0.84 1.57 - -						
Scries Number	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		Pressure (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	-	-	-	-	-
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			Pressu	re (psi)		
OCTIOS HUITIDO	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

Length Availability

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

Ironsides® Maximum For Sloped Ground, Add Head Pressure Shown Below

Hose	Slope Angle	Additional Head Pressure
	5°	11
Vinylflow®	10°	23
Vinylflow®	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	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	Х	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

		CONDITIO	ONS	TPU		7110		
NAME	%	°C	HOURS	POLYETHER Polyurethane	NBR	PVC	BRASS	ALUMINUM
Acetaldehyde	40	21	1000	С	Χ	Χ	А	А
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	Α	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	A	-	В
Aluminium sulfate solutions				В	Α	-	Х	Х
Alums								
Ammonia				В	Х	Α	-	-
Ammonia	28	21	1000			A	Х	-
Ammonium chloride solutions	10	0.1	10000		В	A	Х	-
Ammonium hydroxide	2	21	10000	A	В	Х	X	-
Ammonium hydroxide solutions				P	-	-	Х	-
Ammonium salts				В				
Ammonium sulfate solutions				В	V	V	Α	V
Amyl aleehel				C C	X B	Х	A	X
Amyl alcohol Aniline		21	10000	C	Х	B	A X	A B
Aniseed oil		21	10000	U	^	-	^	<u>В</u>
Asphalt					В	X	A	_
ASTM oil No.1		149		В	A	B	A	A
ASTM Oil No.3		149		В	A	Х	A	A
ASTM reference Fuel A		70		В	A	B	A	A
ASTM reference Fuel B		70		B C	A	Х	A	A
ASTM reference Fuel C		70		U	В	Х	А	-
ASTM reference Fuel C				P		\ <u>'</u>		
Barium hydroxide solutions				В	А	Х	-	-
Beer				0	- V	- V	-	-
Benzaldehyde		6.1	4000	С	Х	X	-	A
Benzene Benzeig geid	2	21	1000	С	В	Х	A	A
Benzoic acid	3	100	10				-	-



Chemical Resistance Chart (continued)

		CONDITI	ONS	TPU				
NAME	%	°C	HOURS	POLYETHER POLYURETHANE	NBR	PVC	BRASS	ALUMINUM
Benzoic acid	3	100	10	С	Χ	Х		
Benzole								
Benzyl alcohol					Х	Α	-	-
Bitumen								
Bleaching lye	İ	21	288					
Borax solutions					Α	А	В	-
Boric acid solutions	10			В	Α	Α	Х	А
Brandy								
Bromine,anhydrous liquid				В	Х	Х	Α	А
Butane		21	1000	_	Х	Х		
Butanol		21	10000		A	A	Α	А
Butter			10000		-	-	-	-
Butter milk								
Butyl acetate		21	10000				А	А
Butyl acetate			10000	С	Х	Α		7.
Butyl alcohol				В	A	A	А	А
Butylene glycol					,,	,,,	-	-
Butyraldehyde					Х	-	А	-
Butyric acid					-	Α	В	А
Calcium chloride		21	10000	В	Α	A	В	-
Calcium chloride solutions	10		10000		A	A	-	-
Calcium hydroxide solutions	1 10			В	В	-	Х	Х
Calcium hypochlorite	5			<u>B</u>	-	В	-	-
Calcium hypochlorite	 	60	1000		-	В		
Camphor	 		1000					
Carbon bisulfide								
Carbon Dioxide				A	Α	A	Α	A
Carbon disulphide		21	1000	В	В	X	В	В
Carbon monoxide		21	1000	<u>_</u>	В	A	A	A
Carbon tetrachloride		21	1000	С	X	X	В	X
Carbon tetrachloride			1000		, A	Λ	<u> </u>	^
Castor oil				В	А	А	А	А
Catechol	6			<u> </u>				Λ
Caustic soda	40				Х	Х	-	-
Chloric Acid 35%	1 40					A		
Chlorine gas,dry				В			-	_
Chlorine gas,wet					Х	Х		
Chlorine water						X	-	-
Chloroacetic acid				С	В	-	-	-
Chlorobenzene				U	Х	X	A	A
Chloroform		21	1000	С	X	X	A	A
Chloromic acid	40	80	1000	C	^	^		^
Chlorosulfonic acid	1 40	00	1000	U	Х	Х	-	-
CELLOSOLVE Acetate					X	A	-	-
Citric acid	10	80	1000	В	X	A	X	
Copper chloride solutions	10	00	1000	D		A	X	A
Copper salts	10				В	A	٨	-
	10				Δ	Δ	V	V
Copper Sulfate solutions					Α	Α	Х	X



Chemical Resistance Chart (continued)

		CONDITIO	ONS	TPU	NDD DVO DD400			
NAME	%	°C	HOURS	POLYETHER POLYURETHANE	NBR	PVC	BRASS	ALUMINUM
Cotton seed oil		21	1000	В	В	-	Α	А
Creosote oil					В	Χ	Χ	А
Cresol		21	10000	С	Х	-	-	А
Cupric sulphate		21	10000	В	Α	А	Χ	Х
Cyclohexane				Disolve	В	Х	А	-
Cyclohexanol					В	Χ	-	-
Cyclohexanone					Х	Х	-	В
Decalin					В	-	А	-
Dibutyl Phthalate		30	1000	С	Х	Α	Α	Α
Diesel oil						С		
Diesel fuel					А	C	Α	А
Diethyl ether		21	10000		Х	В	А	A
Diethyl sebacate			10000		X	X	A	-
Dimethyl formamide				Disolve			-	-
Dimethyl Phthalate				District	Х	-		
Dioctyl Phthalate					Α		А	А
Dioxane		21	1000		Х	Х	A	A
Epichlorohydrin			1000		_	-	-	-
Ethanol		21	10000		A	В	В	A
Ether		21	10000	В	В	В	A	A
Ethyl acetate		21	1000	C	Х	Х	A	A
Ethyl acetate		21	1000	U	^	^	A	A
Ethyl Alcohol				В	A	В	В	Λ.
Ethyl chloride				С	X	Х	В	A A
		21	1000	0	X	X	-	- A
Ethylene dichloride		21	10000	В	A	A	A	A
Ethylene glicol		21	10000	D	A	A	A	А
Ethylene oxide	l	100	10	D	D	۸	Х	Х
Ferric chloride	3	100	10	В	В	А	X	Χ
Ferric chloride		21	10000	В		Δ.	V	V
Ferric chloride solutions					В	A	Х	X
Fluosilicic acid	00	0.4	40000		Х	Х	-	A
Formaldehyde	30	21	10000	В	-	-	A	В
Formic acid	40			С	-	Х		
Formic Acid			1000				В	-
Formic Acid	5	21	1000					
Formic Acid	5	100	10					
Freon 11								
Freon 113		55			Х	Х		
Freon 114								
Freon 12					Х	Х	-	-
Freon II		21	1000					
Fuel oil				В	A	Х	А	А
Gasoline				В	В	С	Α	А
Glue					В	Α	Χ	А
Glycerin				В	Α	Α	A	Α
Glycerol		60	1000		А	А	А	А
Glycol				В	А	-		
Heptane		21	1000		А	В	А	А



Chemical Resistance Chart (continued)

		CONDITION	ONS	TPU				
NAME	%	°C	HOURS	POLYETHER POLYURETHANE	NBR	PVC	BRASS	ALUMINUM
Hexane		60	1000	В	А	Х	А	-
Hydrazine				С	Х	Х	-	-
Hydrochloric acid	10	21	10	С				
Hydrochloric acid	20				В	Х		
Hydrochloric acid	10	21	20000					
Hydrochloric acid	1			С				
Hydrochloric acid	37				-	Х	Χ	Х
Hydrocyanic acid					-	-		
Hydrofluoric acid	48				Χ	Х	Х	Х
Hydrofluoric acid	75			С				
Hydrogen				А	Χ	Χ	-	-
Hydrogen peroxide	30			В	В	Α	Χ	Α
Hydrogen peroxide	3	70	10					
Hydrogen peroxide	3	21	10					
Hydrogen sulfide				С	Х	Х	-	Α
Iron salts	20				Α	Α	-	-
Isooctane				В	Α	Х	Α	-
Isopropanol		60	1000	В	Α	В	В	Α
Isopropyl alcohol					Α	В	В	А
JP-4 Jet Fuel				С	Α	Х	Α	В
Kerosene				В	В	С	А	Α
Kerosene		21	1000					
Lacquer solvents								
Lactic acid	50			В	Α	-	В	Х
Lactic acid	90	21	10000		-	-	В	Х
Linseed oil				В	В	Α	В	Α
Lithium grease		100						
Lubricating oil				В	В	-	В	Α
Magnesium chloride solutions					-	-		
Magnesium hydroxide solutions					-	-	-	Х
Maleic acid	25	21	10000	С	Х	Х	-	-
Mercuric chloride solutions					В	В	Х	Х
Mercury				А	В	Α	Х	Х
Methanol		21	1000		Α	В	В	А
Methyl alcohol					Α	В	В	Α
Methyl ethyl ketone		21	10000	С	Х	Х	А	Α
Methyl ethyl ketone								
Methyl isobutyl ketone					Х	Х	-	-
Methylene chloride		21	1000	С	Х	Х	Α	Х
Mineral oils		80	1000	В	Α	Α	Α	А
Naphtha				В	В	Х	A	В
Naphthalene					-	-	Α	А
Nickel salts				С	Α	В	-	-
Nitric acid	70			С	Х	Х	Х	-
Nitric acid	30				Х	Х	Х	-
Nitric acid	60				Х	Х	Х	-
Nitric acid	10	21	20000	С	Χ	Х	Χ	-



Chemical Resistance Chart (continued)

		CONDITI	ONS	TPU				
NAME	%	°C	HOURS	POLYETHER Polyurethane	NBR	PVC	BRASS	ALUMINUM
Nitric acid, red fuming					Х	Х	-	-
Nitrobenzene				С	Х	Х	А	Α
Nitromethane					Х	Х	А	-
Octane					-	-	-	-
Oleic acid				В	В	В	В	Α
Oleic acid	100	80	1000					
Oleum	20/25				Х	Х	-	-
Olive oils		80	1000		В	В	В	А
Oxalic acid	5	100	10	А	-	Х	Х	В
Palmitic acid					В	-	Х	Α
Paraffin oil					A	-	А	-
Perchloroethane								
Perchloroethylene		120	10	С	Х	Х	Х	-
Perchloroethylene		100	10					
Perchloroethylene			.,					
Petrol		21	1000					
Petroleum			1000	В				
Phenol	1	21	10000	C	Х	Х	Х	В
Phenol		93	10	Ŭ				
Phenol	1	- 50	10					
Phenyl etyl alcohol								
Phosphoric acid	85	21	10000	В	X	Α	Х	Х
Phosphoric acid	10	21	10	В		A	, <u>, , , , , , , , , , , , , , , , , , </u>	^
Pickling solution	20	21	10		-	-		
Plasticizers	1 20							
Potassium bromide	10				-	Α	-	-
Potassium chloride	1 10	21	10000	В	-	A	-	_
Potassium Dichromate	+ +	21	10000	D	-		<u> </u>	
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 1			D	-	X	-	-
	50	21	1000		-	^		
Potassium permanganate Potassium sulphate	1 30	21	1000			А	-	-
· · · · · · · · · · · · · · · · · · ·	+ +			В	X	X	-	-
Propane Propanol				D	^	В		-
	+ +				- v	Х	-	
Pydraul 312		21	10000		Х	Х	- A	- A
Pyridine		21				^	A	А
Pyridine		21	1000					
Pyridine	10	01	1000					
Resorcinol	10	21	1000	D				
SAE 10 oil				В	V			D
Salicylic acid					Х	Α	-	В
Salt				5				
Sea Water		22	4000	В	В	Α	В	-
Silicone fluids		80	1000					



Chemical Resistance Chart (continued)

		CONDITIO	ONS	TPU				
NAME	%	°C	HOURS	POLYETHER POLYURETHANE	NBR	PVC	BRASS	ALUMINUM
Silicone Grease					В	В	А	-
Silver salts				В				
SKYDROL 500B								
Soap	1	120	10	В	А	В	-	-
Sodium bicarbonate	10	80	1000	В	А	А	В	-
Sodium bisulphite	1	100	10	В	Α	Α	-	-
Sodium bromide								
Sodium carbonate	1	120	10	В	Α	А	В	Х
Sodium chloride	0,7	100	10	В			Х	Х
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					
Sodium hypochlorite	5				Х	А	Х	Х
Sodium nitrate	10			В	Х		В	В
Sodium perborate	1	100	10	_	Х	А	X	A
Sodium phosohate	10				-	A	X	X
Sodium sulphate	1.0	21	10000	В	А	A	-	-
Sodium sulphate	10	21	20000			,,,		
Sodium sulphide	10		20000	В	А	А	_	_
Sodium sulphite					В	A		
Sodium thiosulphide								
Soybean oil					В	В	-	-
Stannouschloride	15				A	A	-	-
Steam	10	100		С	X	X	-	_
Stearic acid		100			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				
Sulfuric acid up to	50							
Sulfuric acid above	50					Х		
Sulfurous acid	30				Х	-		
Sulfur, molten								
Sulphuric acid	10	21	10		Х	А		
Sulphuric acid	30	80	1000		X			
Tannic acid	10	00	1000		Х	- A	Х	В
Tartaric acid	10			В	X	В	^	Б
Tetrahydrofuran		21	500	D	X	Х	-	-
Tetrahydrofuran		Z1	300				-	-
Tetraline					Х	-	-	
		01	1000	C	X	- X		-
Toluene		21	1000	С	Χ	Χ	А	A
Toluene Tributul phoophata					V			V
Tributyl phosphate					X	- V	-	Х
Trichlorethane					Х	Х	-	-

Chemical Resistance Chart (continued)

		CONDITIO	ONS	TPU				
NAME	%	°C	HOURS	POLYETHER Polyurethane	NBR	PVC	BRASS	ALUMINUM
Trichloroethylene		21	10000				Α	Х
Trichloroethylene				С	Χ	-		
Triethanolamine					В	В	Α	-
Trisodium phosphate solution				В	В	-	-	-
Tung oil					В	В	Α	Α
Turpentine		21	10000	В	В	Α	В	-
Urea	20			В	В	-	-	-
Vaseline		80	1000					
Vegetable oils		80	1000	В	-	В	-	А
Water		100		В				
Water		70		В				
Water		23		А	Α	Α	Α	А
White spirit		21	1000			С	Α	Α
Xylene				С	Χ	С	-	-
Xylene		60	1000					
Zinc chloride	3	100	10	В				
Zinc chloride solutions				В	В	В	Χ	Х

Notes





Notes

Cautionary Statement

All Products sold and distributed by Kuriyama of America, Inc. are in the nature of commodities and they are sold by published specifications and not for particular purposes, uses or applications. Purchaser shall first determine their suitability for the intended purposes, uses or applications and shall either conduct its own engineering studies or tests, or retain qualified engineers, consultants or testing laboratories and consult with them before determining the proper use, suitability or propriety of the merchandise or Products for the intended purposes, uses or applications.

Kuriyama of America, Inc. ("Seller") does not recommend the Products for any particular purpose, use or application, and the Purchaser or user thereof shall assume full responsibility for the suitability, propriety, use and application of the Products. Purchaser shall follow all instructions contained in Seller's catalogs, brochures, technical bulletins and other documents regarding the Products. The Products, including but not limited to, hose, tubing or couplings, may fail due to the use or conveyance of substances at elevated or lowered temperatures or at excessive pressure, the conveyance of abrasive, injurious, flammable, explosive or damaging substances.

Hose or tubing used in bent configurations will be subjected to increased abrasion. Hose clamps or couplings may loosen after initial installation and all sections of hose and tubing including connections, couplings, clamps, conductivity and bonding should be inspected frequently, regularly and consistently, and should be replaced, adjusted or re-tightened for the avoidance of leakage, for the prevention of injuries or damages, and for general safety purposes. Except as indicated in its Limited Warranty, Seller shall not be liable or responsible for direct or indirect injuries or damages caused by or attributed to the failure or malfunction of any Products sold or distributed by it.

Purchasers or users of the Products should frequently and consistently undertake inspections and protective measures with respect to the use and application of Products, which should include the examination of tube and cover, conditions of the hose or tubing, and the identification, repair or replacement of sections showing cracking, blistering, separations, internal and external abrasions, leaking or slipped couplings or connections and make proper proof tests.

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