緯鉅膠管(馬)股份有限公司

WELLCALL HOSE (M) SDN BHD

Industrial Rubber Hose

Manufacturing

of rubber hose and

related products

Custom Made To Your Specifications

Contents

Company Profile

Wellcall, established in 1996, is located at Ipoh, the state of Perak in Malaysia. We have expertise in manufacturing a wide range of industrial rubber hoses that cater to various applications markets such as industrial and construction site, mining, automobile, petroleum, oil and gas, sea and land transportation, food and beverage, shipyard et cetera. Wellcall is a global and the largest industry rubber hose manufacturer in Malaysia.

We are a manufacturer of Light & Medium Pressure Industrial Rubber Hose in Malaysia. We do produce and export various types of Extrusion & Mandrel Built Hoses to overseas such as Water Hose, Air Hose, Fuel/Oil Hose, Car Heater Hose, Single/Twin Welding Hose, General/Multi-purpose Air & Water Hose, Water/Oil Suction & Discharge hose, Tank Truck Hose, Sand Blast Hose, Concrete/Cement Hose, Food Suction & Delivery Hose, Mining Air/Water hose, Marine Fuel Hose, Marine Exhaust Hose and many more products available.

Under the steerage of top management, Wellcall has grown steadily over the years. Seniors in management and technical fields have in-depth knowledge, skills and expertise in all aspects of the manufacturing of rubber hose for more than 35 years and have formulated Wellcall's strategic plans to be in line with the changes in the trends of various industries and customer needs. To date, Wellcall has a workforce of over 450 staffs. We have our own in-house Research And Development Division (R&D) which is able to develop customised products. Wellcall has expanded its existing factory space from 150,000 sq. ft. to 360,000 sq. ft., encompassing a total land area of approximately 504,570 sq. ft.

We can produce the extruded type of hoses from the smallest bore size of 3/16” to the largest of 2”. While the large bore size of mandrel hose (nylon wrappings) type can be produced under the range of 1/2” to 14”. In addition, we are capable of producing mandrel type of hose in length of 40 meters and 60 meters for the bore size below 4”.

“Product Quality” and “Customer Satisfaction” is the core emphasis of Wellcall. Our management strongly upholds the belief of “Technology Innovation” and “Excellent Quality” with the support of strong management team, advanced technologies and production facilities; Wellcall is poised to provide Excellent Product Quality and Services.

BUSINESS ETHICS

“Commitment and Integrity” is the strong upholding principle of WellCall.
Stringent Product Process Control to gain customer's confidence and support.

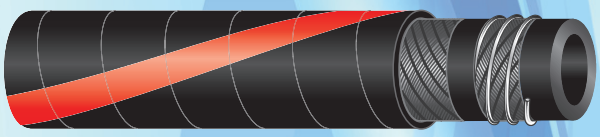
BUSINESS CHARACTERISTICS

Well-equipped with in-house R&D teams to develop customised products.
Capable of supplying in large quantity with variety of product items.

Air Seeder Hose

(Hardwall)

Mandrel



APPLICATION:
Hardwall hose designed for dry conveyance of seeds and other materials for medium duty abrasion and service.

TEMPERATURE:
-20°C (-4°F) to +70°C (+158°F)

TUBE:
Black, smooth, synthetic rubber, abrasion resistant.

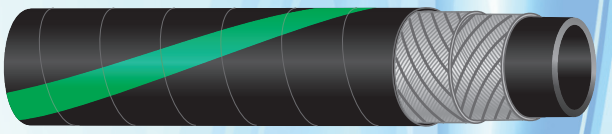
REINFORCEMENT:
High strength synthetic cord and helix wire.

COVER:
Black, smooth (wrapped finish), weathering and ozone resistant.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3/4"	19.1	29	10	150	30	450	60	200
1"	25.4	35	10	150	30	450	60	200
1-1/4"	31.8	42	10	150	30	450	60	200
1-1/2"	38.1	48	10	150	30	450	60	200
2"	50.8	63	10	150	30	450	60	200
2-1/2"	63.5	76	10	150	30	450	60	200
3"	76.2	89	10	150	30	450	60	200
4"	101.6	118	10	150	30	450	60	200
6"	152.4	170	10	150	30	450	30	100

Bulk Materials Discharge Hose

Mandrel



APPLICATION:
Specially designed softwall hose for delivery of dry cement, sand, gravel and etc. Equipped with excellent rebound, durability and abrasion resistant properties.

TEMPERATURE:
-30°C (-22°F) to +70°C (+158°F)

TUBE:
Black, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic cord.

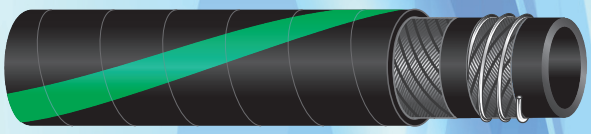
COVER:
Black, smooth (wrapped finish), synthetic rubber, weathering and ozone resistant.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
2"	50.8	68	10	150	30	450	60	200
2-1/8"	54	71	10	150	30	450	60	200
2-1/4"	57.2	74	10	150	30	450	60	200
2-3/8"	60.3	77	10	150	30	450	60	200
2-1/2"	63.5	81	10	150	30	450	60	200
2-5/8"	66.7	84	10	150	30	450	40	130
2-3/4"	69.9	88	10	150	30	450	40	130
2-7/8"	73	91	10	150	30	450	60	200
3"	76.2	94	10	150	30	450	60	200
3-1/8"	79.4	98	10	150	30	450	40	130
3-1/2"	88.9	107	10	150	30	450	60	200
4"	101.6	120	10	150	30	450	60	200
4-1/2"	114.3	134	10	150	30	450	30	100
5"	127	148	10	150	30	450	30	100
6"	152.4	175	10	150	30	450	30	100
8"	203.2	230	10	150	30	450	30	100
10"	254	281	10	150	30	450	12	40
12"	304.8	334	10	150	30	450	12	40

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Bulk Materials Suction and Discharge Hose



Mandrel

APPLICATION:
Specially designed hardwall hose for suction and delivery of dry cement, sand, gravel and etc. Equipped with excellent rebound, durability and abrasion resistant properties.

TEMPERATURE:
-30°C (-22°F) to +70°C (+158°F)

TUBE:
Black, smooth, synthetic rubber.

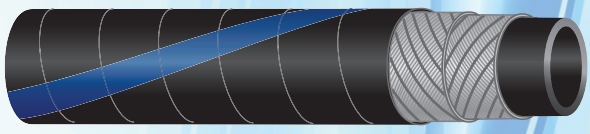
REINFORCEMENT:
High strength synthetic cord and helix wire.

COVER:
Black, smooth (wrapped finish), synthetic rubber, weathering and ozone resistant.

OPTIONAL REQUEST:
Corrugated (wrapped finish).

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
2"	50.8	69	10	150	30	450	60	200
2-1/8"	54	72	10	150	30	450	60	200
2-1/4"	57.2	75	10	150	30	450	60	200
2-3/8"	60.3	79	10	150	30	450	60	200
2-1/2"	63.5	82	10	150	30	450	60	200
2-5/8"	66.7	85	10	150	30	450	40	130
2-3/4"	69.9	89	10	150	30	450	40	130
2-7/8"	73	92	10	150	30	450	60	200
3"	76.2	95	10	150	30	450	60	200
3-1/8"	79.4	99	10	150	30	450	40	130
3-1/2"	88.9	108	10	150	30	450	60	200
4"	101.6	122	10	150	30	450	60	200
4-1/2"	114.3	136	10	150	30	450	30	100
5"	127	149	10	150	30	450	30	100
6"	152.4	176	10	150	30	450	30	100
8"	203.2	233	10	150	30	450	30	100
10"	254	284	10	150	30	450	12	40
12"	304.8	338	10	150	30	450	12	40

Sandblast Hose



Mandrel

APPLICATION:
Softwall abrasion resistant hose designed for the delivery of steel shots, sand and etc.

TEMPERATURE:
-40°C (-40°F) to +70°C (+158°F)

TUBE:
Black, smooth, high abrasion resistant, anti-static.

REINFORCEMENT:
High strength synthetic cord.

COVER:
Black, smooth (wrapped finish), abrasion resistant.

OPTIONAL REQUEST:
Standard ISO 3861.

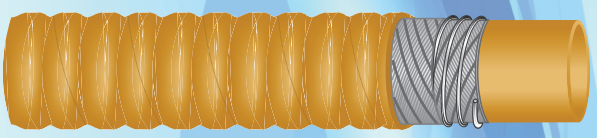
I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/2"	12.7	28	10	150	30	450	60	200
1/2"	12.7	34	10	150	30	450	60	200
5/8"	15.9	26	10	150	30	450	60	200
5/8"	15.9	30	10	150	30	450	60	200
3/4"	19.1	34	10	150	30	450	60	200
3/4"	19.1	38	10	150	30	450	60	200
1"	25.4	38	10	150	30	450	60	200
1"	25.4	47	10	150	30	450	60	200
1-1/4"	31.8	42	10	150	30	450	60	200
1-1/4"	31.8	48	10	150	30	450	60	200
1-1/2"	38.1	58	10	150	30	450	60	200
2"	50.8	70	10	150	30	450	60	200
3"	76.2	96	10	150	30	450	60	200

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Industrial Vacuum Hose

Mandrel



APPLICATION:
Light weight corrugated hardwall industrial hose designed for the extraction of waste dust, fumes, light particles and etc.

TEMPERATURE:
-20°C (-4°F) to +70°C (+158°F)

TUBE:
Tan, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic cord and helix wire.

COVER:
Tan, corrugated (wrapped finish) synthetic rubber.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/2"	12.7	20	10	150	30	450	60	200
5/8"	15.9	23	10	150	30	450	60	200
3/4"	19.1	26	10	150	30	450	60	200
7/8"	22.2	30	10	150	30	450	60	200
1"	25.4	33.5	10	150	30	450	60	200
1-1/8"	28.6	38	10	150	30	450	60	200
1-3/16"	30.2	39	10	150	30	450	60	200
1-1/4"	31.8	40	10	150	30	450	60	200
1-5/16"	33.3	42	10	150	30	450	60	200
1-3/8"	34.9	43	10	150	30	450	60	200
1-1/2"	38.1	46	10	150	30	450	60	200
1-9/16"	39.7	48	10	150	30	450	60	200
1-5/8"	41.3	49	10	150	30	450	60	200
1-3/4"	44.5	53	10	150	30	450	60	200
1-7/8"	47.6	56	10	150	30	450	60	200
2"	50.8	59	10	150	30	450	60	200
2-1/8"	54	63	10	150	30	450	60	200
2-1/4"	57.2	67	10	150	30	450	60	200
2-3/8"	60.3	68	10	150	30	450	60	200
2-1/2"	63.5	72	10	150	30	450	60	200
2-5/8"	66.7	74	10	150	30	450	40	130
2-3/4"	69.9	78	10	150	30	450	40	130
2-7/8"	73	82	10	150	30	450	60	200
3"	76.2	85	10	150	30	450	60	200
3-1/8"	79.4	90	10	150	30	450	40	130
3-1/2"	88.9	99	10	150	30	450	60	200
4"	101.6	111	10	150	30	450	60	200
4-1/2"	114.3	126	10	150	30	450	30	100
5"	127	137	10	150	30	450	30	100
6"	152.4	163	10	150	30	450	30	100
8"	203.2	214	10	150	30	450	30	100
10"	254	264	10	150	30	450	12	40
12"	304.8	316	10	150	30	450	12	40

COMMONLY AVAILABLE UPON REQUEST:
- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Air Hose

Extrusion

APPLICATION:
Oil mist resistant Air hose for versatile general industries and construction sites. NOT suitable for transfer of petroleum products.

TEMPERATURE:
-20°C (-4°F) to +70°C (+158°F)

TUBE:
Black, smooth, synthetic rubber, oil mist resistant.

REINFORCEMENT:
High strength synthetic yarn.

COVER:
Yellow, smooth, synthetic rubber, weathering and ozone resistant.

OPTIONAL REQUEST:
ISO 2398, Type 1, Class A

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3/16"	4.8	12	20	300	60	900	120	400
1/4"	6.4	13	20	300	60	900	120	400
5/16"	7.9	15	20	300	60	900	100	330
3/8"	9.5	17	20	300	60	900	100	330
1/2"	12.7	21	20	300	60	900	100	330
5/8"	15.9	26	20	300	60	900	100	330
3/4"	19.1	29	20	300	60	900	100	330
7/8"	22.2	32	20	300	60	900	100	330
1"	25.4	36	20	300	60	900	100	330
1-1/4"	31.8	44	15	225	45	675	60	200
1-1/2"	38.1	54	15	225	45	675	60	200
2"	50.8	66	15	225	45	675	60	200

Hot Air Hose

Extrusion

APPLICATION:
Heavy duty hot air hose is specifically designed to convey air for high temperature applications.

TEMPERATURE:
-20°C (-4°F) to +100°C (+212°F)

TUBE:
Black, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic yarn.

COVER:
Black, smooth, synthetic rubber, weathering and ozone resistant.

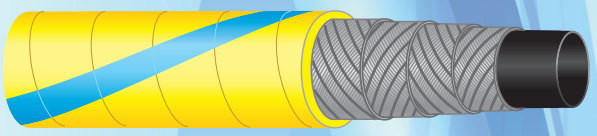
I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/4"	6.4	13	20	300	60	900	120	400
5/16"	7.9	15	20	300	60	900	100	330
3/8"	9.5	17	20	300	60	900	100	330
1/2"	12.7	21	20	300	60	900	100	330
5/8"	15.9	26	20	300	60	900	100	330
3/4"	19.1	29	20	300	60	900	100	330
7/8"	22.2	32	20	300	60	900	100	330
1"	25.4	36	20	300	60	900	100	330
1-1/4"	31.8	44	15	225	45	675	60	200
1-1/2"	38.1	54	15	225	45	675	60	200
2"	50.8	66	15	225	45	675	60	200

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Compressed Air Hose

Mandrel



APPLICATION:
Softwall hose designed for general purpose compressed air applications with oil mist resistance.

TEMPERATURE:
-40°C (-40°F) to +70°C (+158°F)

TUBE:
Black, smooth, synthetic rubber, oil mist resistant.

REINFORCEMENT:
High strength synthetic cord.

COVER:
Yellow, smooth (wrapped finish), weathering and ozone resistant.

OPTIONAL REQUEST:
Standard ISO 2398, Type 1, Class A.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/2"	12.7	21	10	150	40	600	60	200
3/4"	19.1	28	10	150	40	600	60	200
1"	25.4	34	10	150	40	600	60	200
1-1/4"	31.8	42	10	150	40	600	60	200
1-1/2"	38.1	48	10	150	40	600	60	200
2"	50.8	62	10	150	40	600	60	200
2-1/2"	63.5	76	10	150	40	600	60	200
3"	76.2	89	10	150	40	600	60	200
4"	101.6	116	10	150	40	600	60	200

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/2"	12.7	23	20	300	60	900	60	200
3/4"	19.1	30	20	300	60	900	60	200
1"	25.4	37	20	300	60	900	60	200
1-1/4"	31.8	46	20	300	60	900	60	200
1-1/2"	38.1	52	20	300	60	900	60	200
2"	50.8	68	20	300	60	900	60	200
2-1/2"	63.5	80	20	300	60	900	60	200
3"	76.2	92	20	300	60	900	60	200
4"	101.6	120	20	300	60	900	60	200

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Air Brake Hose

Extrusion

APPLICATION:
Designed for use in automotive air brake system.

TEMPERATURE:
-40°C (-40°F) to +93°C (+200°F)

TUBE:
Black, smooth, EPDM rubber.

REINFORCEMENT:
High strength synthetic yarn.

COVER:
Black, smooth, EPDM rubber, heat and ozone resistant.

OPTIONAL REQUEST:
Standard SAE J1402 Type A.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/4"	6.4	16	20	300	60	900	100	330
3/8"	9.5	19	20	300	60	900	100	330
1/2"	12.7	22	20	300	60	900	100	330

Car Heater Hose

Extrusion

APPLICATION:
Medium duty hose specially designed for the transfer of hot water in automobile's heating system.

TEMPERATURE:
-20°C (-4°F) to +100°C (+212°F)

TUBE:
Black, synthetic rubber.

REINFORCEMENT:
High strength synthetic yarn.

COVER:
Black, smooth, synthetic rubber, abrasion and weather resistant.

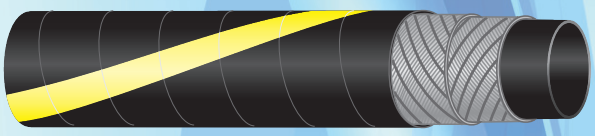
I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3/8"	9.5	17	10	150	30	450	100	330
1/2"	12.7	20	10	150	30	450	100	330
5/8"	15.9	24	10	150	30	450	100	330
3/4"	19.1	27	10	150	30	450	100	330
1"	25.4	35	10	150	30	450	100	330

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Radiator Hose

Mandrel



APPLICATION:
Softwall hose for conveying hot water mixed with anti-freeze liquids in cooling systems.

TEMPERATURE:
-40°C (-40°F) to +100°C (+212°F)

TUBE:
Black, smooth, EPDM rubber.

REINFORCEMENT:
High strength synthetic cord.

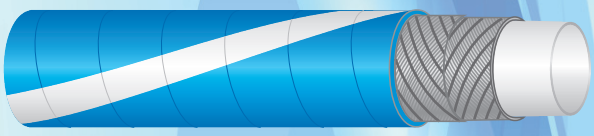
COVER:
Black, smooth (wrapped finish), EPDM rubber.

OPTIONAL REQUEST:
Higher temperature up to 120°C (248°F)

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/2"	12.7	21	3	45	9	135	60	200
5/8"	15.9	25	3	45	9	135	60	200
3/4"	19.1	28	3	45	9	135	60	200
7/8"	22.2	31	3	45	9	135	60	200
1"	25.4	34	3	45	9	135	60	200
1-1/8"	28.6	38	3	45	9	135	60	200
1-3/16"	30.2	40	3	45	9	135	60	200
1-1/4"	31.8	42	3	45	9	135	60	200
1-5/16"	33.3	43	3	45	9	135	60	200
1-3/8"	34.9	45	3	45	9	135	60	200
1-1/2"	38.1	48	3	45	9	135	60	200
1-9/16"	39.7	50	3	45	9	135	60	200
1-5/8"	41.3	52	3	45	9	135	60	200
1-3/4"	44.5	55	3	45	9	135	60	200
1-7/8"	47.6	59	3	45	9	135	60	200
2"	50.8	62	3	45	9	135	60	200
2-1/8"	54	66	3	45	9	135	60	200
2-1/4"	57.2	69	3	45	9	135	60	200
2-3/8"	60.3	72	3	45	9	135	60	200
2-1/2"	63.5	76	3	45	9	135	60	200
2-5/8"	66.7	78	3	45	9	135	40	130
2-3/4"	69.9	82	3	45	9	135	40	130
2-7/8"	73	86	3	45	9	135	60	200
3"	76.2	89	3	45	9	135	60	200
3-1/8"	79.4	94	3	45	9	135	40	130
3-1/2"	88.9	103	3	45	9	135	60	200
4"	101.6	116	3	45	9	135	60	200
4-1/2"	114.3	129	3	45	9	135	30	100
5"	127	142	3	45	9	135	30	100
6"	152.4	167	3	45	9	135	30	100

COMMONLY AVAILABLE UPON REQUEST:
- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Chemical Discharge Hose



Mandrel

APPLICATION:
Softwall hose designed to handle a wide range of chemical products, sewage system and filtration plants.

TEMPERATURE:
-20°C (-4°F) to +65°C (+149°F)

TUBE:
White, smooth, EPDM rubber.

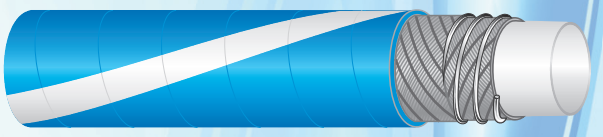
REINFORCEMENT:
High strength synthetic cord.

COVER:
Blue, smooth (wrapped finish), EPDM rubber, resistant to chemical, weathering and ozone.

OPTIONAL REQUEST:
Anti-static wire.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3/4"	19.1	31	10	150	40	600	60	200
1"	25.4	37	10	150	40	600	60	200
1-1/4"	31.8	44	10	150	40	600	60	200
1-1/2"	38.1	51	10	150	40	600	60	200
2"	50.8	67	10	150	40	600	60	200
2-1/2"	63.5	79	10	150	40	600	60	200
3"	76.2	92	10	150	40	600	60	200
3-1/2"	88.9	105	10	150	40	600	60	200
4"	101.6	118	10	150	40	600	60	200

Chemical Suction and Discharge Hose



Mandrel

APPLICATION:
Hardwall hose designed to handle a wide range of chemical products, sewage system and filtration plants.

TEMPERATURE:
-20°C (-4°F) to +65°C (+149°F)

TUBE:
White, smooth, EPDM rubber.

REINFORCEMENT:
High strength synthetic cord and helix wire.

COVER:
Blue, smooth (wrapped finish), EPDM rubber, resistant to chemical, weathering and ozone.

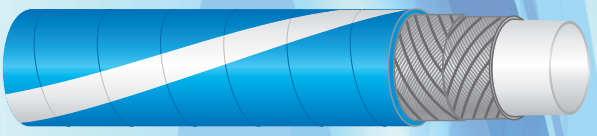
OPTIONAL REQUEST:
Corrugated (wrapped finish); Anti-static wire.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3/4"	19.1	31	10	150	40	600	60	200
1"	25.4	37	10	150	40	600	60	200
1-1/4"	31.8	44	10	150	40	600	60	200
1-1/2"	38.1	51	10	150	40	600	60	200
2"	50.8	67	10	150	40	600	60	200
2-1/2"	63.5	79	10	150	40	600	60	200
3"	76.2	92	10	150	40	600	60	200
3-1/2"	88.9	105	10	150	40	600	60	200
4"	101.6	118	10	150	40	600	60	200

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

UHMWPE Chemical Discharge Hose



Mandrel

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3/4"	19.1	31	10	150	40	600	60	200
1"	25.4	37	10	150	40	600	60	200
1-1/4"	31.8	44	10	150	40	600	60	200
1-1/2"	38.1	51	10	150	40	600	60	200
2"	50.8	67	10	150	40	600	60	200
2-1/2"	63.5	79	10	150	40	600	60	200
3"	76.2	92	10	150	40	600	60	200
3-1/2"	88.9	105	10	150	40	600	60	200
4"	101.6	118	10	150	40	600	60	200

APPLICATION:
Softwall hose designed with ultra-high molecular weight polyethylene tube, excellent in handling a wide range of chemicals, petroleum products and oils.

TEMPERATURE:
-30°C (-22°F) to +65°C (+149°F)

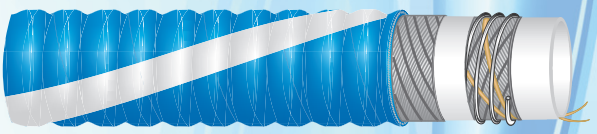
TUBE:
White, smooth, Ultra High Molecular Weight Polyethylene (UHMWPE).

REINFORCEMENT:
High strength synthetic cord.

COVER:
Blue, smooth (wrapped finish), EPDM rubber, resistant to chemical, weathering and ozone.

OPTIONAL REQUEST:
Anti-static wire; Conductive UHMWPE film.

UHMWPE Chemical Suction and Discharge Hose



Mandrel

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3/4"	19.1	31	10	150	40	600	60	200
1"	25.4	37	10	150	40	600	60	200
1-1/4"	31.8	44	10	150	40	600	60	200
1-1/2"	38.1	51	10	150	40	600	60	200
2"	50.8	67	10	150	40	600	60	200
2-1/2"	63.5	79	10	150	40	600	60	200
3"	76.2	92	10	150	40	600	60	200
3-1/2"	88.9	105	10	150	40	600	60	200
4"	101.6	118	10	150	40	600	60	200

APPLICATION:
Hardwall hose designed with ultra-high molecular weight polyethylene tube, excellent in handling a wide range of chemicals, petroleum products and oils.

TEMPERATURE:
-30°C (-22°F) to +65°C (+149°F)

TUBE:
White, smooth, Ultra High Molecular Weight Polyethylene (UHMWPE)

REINFORCEMENT:
High strength synthetic cord and helix wire.

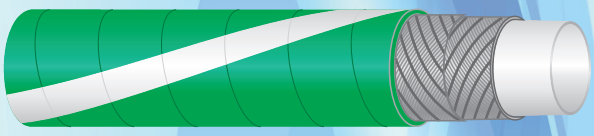
COVER:
Blue, corrugated (wrapped finish), EPDM rubber, resistant to chemical, weathering and ozone.

OPTIONAL REQUEST:
Smooth (wrapped finish); Anti-static wire; Conductive UHMWPE film.

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

XLPE Chemical Discharge Hose



Mandrel

APPLICATION:
Softwall hose designed with cross-linked polyethylene tube, excellent in handling a wide range of chemicals, petroleum products and oils.

TEMPERATURE:
-30°C (-22°F) to +65°C (+149°F)

TUBE:
White, smooth, cross-linked polyethylene (XLPE).

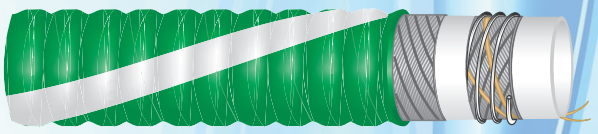
REINFORCEMENT:
High strength synthetic cord.

COVER:
Green, smooth (wrapped finish), EPDM rubber, resistant to chemical, weathering and ozone.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3/4"	19.1	31	10	150	40	600	60	200
1"	25.4	37	10	150	40	600	60	200
1-1/4"	31.8	44	10	150	40	600	60	200
1-1/2"	38.1	51	10	150	40	600	60	200
2"	50.8	67	10	150	40	600	60	200
2-1/2"	63.5	79	10	150	40	600	60	200
3"	76.2	92	10	150	40	600	60	200
3-1/2"	88.9	105	10	150	40	600	60	200
4"	101.6	118	10	150	40	600	60	200

OPTIONAL REQUEST:
Anti-static wire.

XLPE Chemical Suction and Discharge Hose



Mandrel

APPLICATION:
Hardwall hose designed with cross-linked polyethylene tube, excellent in handling a wide range of chemicals, petroleum products and oils.

TEMPERATURE:
-30°C (-22°F) to +65°C (+149°F)

TUBE:
White, smooth, cross-linked polyethylene (XLPE).

REINFORCEMENT:
High strength synthetic cord and helix wire.

COVER:
Green, corrugated (wrapped finish), EPDM rubber, resistant to chemical, weathering and ozone.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3/4"	19.1	31	10	150	40	600	60	200
1"	25.4	37	10	150	40	600	60	200
1-1/4"	31.8	44	10	150	40	600	60	200
1-1/2"	38.1	51	10	150	40	600	60	200
2"	50.8	67	10	150	40	600	60	200
2-1/2"	63.5	79	10	150	40	600	60	200
3"	76.2	92	10	150	40	600	60	200
3-1/2"	88.9	105	10	150	40	600	60	200
4"	101.6	118	10	150	40	600	60	200

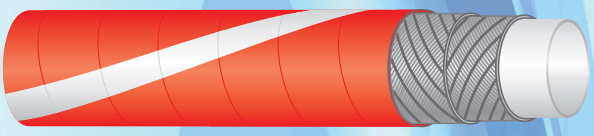
OPTIONAL REQUEST:
Smooth (wrapped finish); Anti-static wire.

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Food Discharge Hose

(For Fatty Foods)



Mandrel

APPLICATION:
FDA approved food hose designed for the delivery of fatty foods such as milk, edible oil, daily products & etc.

TEMPERATURE:
-20°C (-4°F) to +80°C (+176°F)

TUBE:
White, smooth, NBR food quality rubber.

REINFORCEMENT:
High strength synthetic cord.

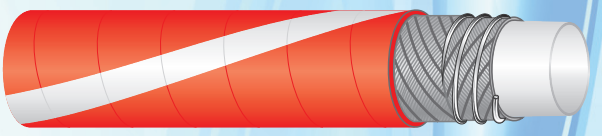
COVER:
Red, smooth (wrapped finish), synthetic rubber, oil and weathering resistant.

OPTIONAL REQUEST:
Standard F.D.A. Title 21, 177.2600.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/2"	12.7	24	10	150	30	450	60	200
3/4"	19.1	32	10	150	30	450	60	200
1"	25.4	38	10	150	30	450	60	200
1-1/4"	31.8	46	10	150	30	450	60	200
1-1/2"	38.1	52	10	150	30	450	60	200
2"	50.8	68	10	150	30	450	60	200
2-1/2"	63.5	80	10	150	30	450	60	200
3"	76.2	93	10	150	30	450	60	200
4"	101.6	120	10	150	30	450	60	200

Food Suction and Discharge Hose

(For Fatty Foods)



Mandrel

APPLICATION:
FDA approved food hose designed for suction and delivery of fatty foods such as milk, edible oil, daily products etc.

TEMPERATURE:
-20°C (-4°F) to +80°C (+176°F)

TUBE:
White, smooth, NBR food quality rubber.

REINFORCEMENT:
High strength synthetic cord and helix wire.

COVER:
Red, smooth (wrapped finish), synthetic rubber, oil and weathering resistant.

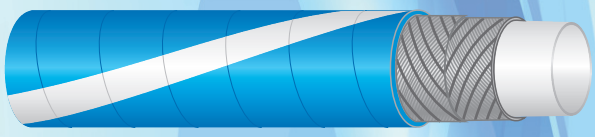
I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/2"	12.7	24	10	150	30	450	60	200
3/4"	19.1	32	10	150	30	450	60	200
1"	25.4	38	10	150	30	450	60	200
1-1/4"	31.8	46	10	150	30	450	60	200
1-1/2"	38.1	52	10	150	30	450	60	200
2"	50.8	66	10	150	30	450	60	200
2-1/2"	63.5	80	10	150	30	450	60	200
3"	76.2	93	10	150	30	450	60	200
4"	101.6	120	10	150	30	450	60	200

OPTIONAL REQUEST:
Standard F.D.A. Title 21, 177.2600;
Corrugated (wrapped finish).

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Food Discharge Hose
(Non-Fatty Foods)



Mandrel

APPLICATION:
FDA approved food hose designed for the delivery of aqueous foods such as wine, juice, soft drinks, and other foodstuff.
NOT recommended for fatty foods.

TEMPERATURE:
-20°C (-4°F) to +80°C (+176°F)

TUBE:
White, smooth, EPDM food quality rubber.

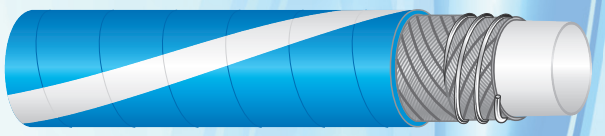
REINFORCEMENT:
High strength synthetic cord.

COVER:
Blue, smooth (wrapped finish), synthetic rubber, weathering resistant.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/2"	12.7	24	10	150	30	450	60	200
3/4"	19.1	32	10	150	30	450	60	200
1"	25.4	38	10	150	30	450	60	200
1-1/4"	31.8	46	10	150	30	450	60	200
1-1/2"	38.1	52	10	150	30	450	60	200
2"	50.8	66	10	150	30	450	60	200
2-1/2"	63.5	80	10	150	30	450	60	200
3"	76.2	93	10	150	30	450	60	200
4"	101.6	120	10	150	30	450	60	200

OPTIONAL REQUEST:
Standard F.D.A. Title 21, 177.2600.

Food Suction and Discharge Hose
(Non-Fatty Foods)



Mandrel

APPLICATION:
FDA approved food hose designed for suction and delivery of aqueous foods such as wine, juice, soft drinks, and other foodstuff. NOT recommended for fatty foods.

TEMPERATURE:
-20°C (-4°F) to +80°C (+176°F)

TUBE:
White, smooth, EPDM food quality rubber.

REINFORCEMENT:
High strength synthetic cord and helix wire.

COVER:
Blue, smooth (wrapped finish), synthetic rubber, weathering resistant.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/2"	12.7	24	10	150	30	450	60	200
3/4"	19.1	32	10	150	30	450	60	200
1"	25.4	38	10	150	30	450	60	200
1-1/4"	31.8	46	10	150	30	450	60	200
1-1/2"	38.1	52	10	150	30	450	60	200
2"	50.8	66	10	150	30	450	60	200
2-1/2"	63.5	80	10	150	30	450	60	200
3"	76.2	93	10	150	30	450	60	200
4"	101.6	120	10	150	30	450	60	200

OPTIONAL REQUEST:
Standard F.D.A. Title 21, 177.2600;
Corrugated (wrapped finish).

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Marine Fuel Hose

Extrusion

APPLICATION:
Designed with fire resistant property to convey fuel oil or diesel fuel aboard small craft including pleasure craft.

TEMPERATURE:
-25°C (-13°F) to +100°C (+212°F)

TUBE:
Black, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic yarn.

COVER:
Black, smooth, synthetic rubber, weathering resistant and fire retardant.

OPTIONAL REQUEST:
Standard SAE J1527, Type A1, ISO 7840, A1 USCG.

Standard SAE J1527, Type A1, ISO 7840, A2 USCG.

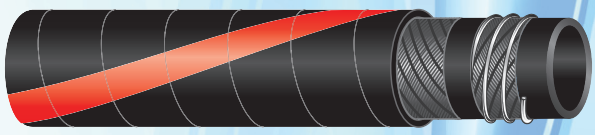
I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/4"	6.4	15.8	3.5	50	14	200	100	330
5/16"	7.9	17.5	3.5	50	14	200	100	330
3/8"	9.5	20	3.5	50	14	200	100	330
1/2"	12.7	24	3.5	50	14	200	100	330

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
5/8"	15.9	27	3.5	50	14	200	100	330
3/4"	19.1	30	3.5	50	14	200	100	330
1"	25.4	36	3.5	50	14	200	100	330

Marine Fuel Hose

(Hardwall)

Mandrel



APPLICATION:
Hardwall hose designed for conveying gasoline or diesel fuel aboard small craft including pleasure craft.

TEMPERATURE:
-25°C (-13°F) to +100°C (+212°F)

TUBE:
Black, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic cord and helix wire.

COVER:
Black, smooth (wrapped finish), synthetic rubber, weathering resistant.

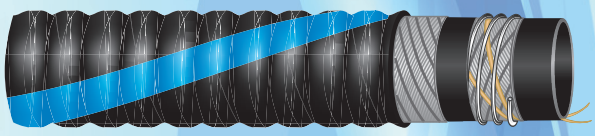
OPTIONAL REQUEST:
Standard SAE J1527 Type A2 Style R2.

I.D.		O.D.	Work pressure		Burst pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1-1/2"	31.8	48	10	150	30	450	60	200
1-5/8"	41.3	51	10	150	30	450	60	200
1-7/8"	47.6	60	10	150	30	450	60	200
2"	50.8	63.5	10	150	30	450	60	200
2-3/8"	60.3	73	10	150	30	450	60	200

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Marine Wet Exhaust Hose
(Hardwall)



Mandrel

APPLICATION:
Light weight, flexible, hardwall hose for water cooled diesel engine exhaust gas systems installed on a small craft less than 24m in length or pleasure yachts.

TEMPERATURE:
-30°C (-22°F) to +100°C (+212°F)

TUBE:
Black, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic cord, helix wire.

COVER:
Black, corrugated (wrapped finish), synthetic rubber, weathering & abrasion resistant.

OPTIONAL REQUEST:
Standard SAE J2006:03 Type R2; Smooth (wrapped finish).

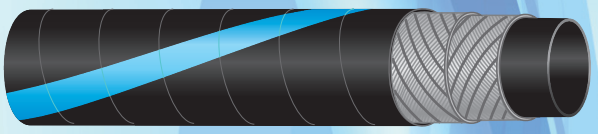
I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/2"	12.7	20	3	45	9	135	60	200
5/8"	15.9	23	3	45	9	135	60	200
3/4"	19.1	26	3	45	9	135	60	200
7/8"	22.2	30	3	45	9	135	60	200
1"	25.4	33.5	3	45	9	135	60	200
1-1/8"	28.6	38	3	45	9	135	60	200
1-3/16"	30.2	39	3	45	9	135	60	200
1-1/4"	31.8	40	3	45	9	135	60	200
1-5/16"	33.3	42	3	45	9	135	60	200
1-3/8"	34.9	43	3	45	9	135	60	200
1-1/2"	38.1	46	3	45	9	135	60	200
1-9/16"	39.7	48	3	45	9	135	60	200
1-5/8"	41.3	49	3	45	9	135	60	200
1-3/4"	44.5	53	3	45	9	135	60	200
1-7/8"	47.6	56	3	45	9	135	60	200
2"	50.8	59	3	45	9	135	60	200
2-1/8"	54	63	3	45	9	135	60	200
2-1/4"	57.2	67	3	45	9	135	60	200
2-3/8"	60.3	68	3	45	9	135	60	200
2-1/2"	63.5	72	3	45	9	135	60	200
2-5/8"	66.7	74	3	45	9	135	40	130
2-3/4"	69.9	78	3	45	9	135	40	130
2-7/8"	73	82	3	45	9	135	60	200
3"	76.2	85	3	45	9	135	60	200
3-1/8"	79.4	90	3	45	9	135	40	130
3-1/2"	88.9	99	3	45	9	135	60	200
4"	101.6	111	3	45	9	135	60	200
4-1/2"	114.3	126	3	45	9	135	30	100
5"	127	137	3	45	9	135	30	100
6"	152.4	163	3	45	9	135	30	100
8"	203.2	214	3	45	9	135	30	100
10"	254	264	3	45	9	135	12	40
12"	304.8	316	3	45	9	135	12	40

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Marine Wet Exhaust Hose

(Softwall)



Mandrel

APPLICATION:
Softwall hose designed for water cooled diesel engine exhaust gas systems installed on a small craft less than 24m in length or pleasure yachts.

TEMPERATURE:
-30°C (-22°F) to +100°C (+212°F)

TUBE:
Black, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic cord.

COVER:
Black, smooth (wrapped finish), synthetic rubber, weathering & abrasion resistant.

OPTIONAL REQUEST:
Standard SAE J2006:03 Type R1.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
7/8"	22.2	32	3	45	9	135	60	200
1"	25.4	35	3	45	9	135	60	200
1-1/8"	28.6	38	3	45	9	135	60	200
1-1/4"	31.8	43	3	45	9	135	60	200
1-5/16"	33.3	44	3	45	9	135	60	200
1-3/8"	34.9	46	3	45	9	135	60	200
1-1/2"	38.1	49	3	45	9	135	60	200
1-5/8"	41.3	54	3	45	9	135	60	200
1-3/4"	44.5	56	3	45	9	135	60	200
1-7/8"	47.6	59	3	45	9	135	60	200
2"	50.8	63.5	3	45	9	135	60	200
2-1/8"	54	66.5	3	45	9	135	60	200
2-1/4"	57.2	70	3	45	9	135	60	200
2-3/8"	60.3	74	3	45	9	135	60	200
2-1/2"	63.5	77.5	3	45	9	135	60	200
2-5/8"	66.7	82	3	45	9	135	40	130
2-7/8"	73	87	3	45	9	135	60	200
3"	76.2	90	3	45	9	135	60	200
3-1/8"	79.4	92	3	45	9	135	40	130
3-1/2"	88.9	104	3	45	9	135	60	200
4"	101.6	116	3	45	9	135	60	200
4-1/2"	114.3	130	3	45	9	135	30	100

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Freon Gas Hose

Extrusion

APPLICATION:
Use in all air condition filling stations for automotive and other gas related industries.

TEMPERATURE:
-20°C (-4°F) to +65°C (+149°F)

TUBE:
Black, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic yarn.

COVER:
Red / Blue / Yellow, smooth, synthetic rubber, weathering and ozone resistant.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3/16"	4.8	11	35	500	140	2000	100	330

Multipurpose Hose

Extrusion

APPLICATION:
Designed for general industrial applications where contact with oil / grease is frequent. Suitable for air, water and oil in separate occasion. NOT suitable for chemical and abrasive medium.

TEMPERATURE:
-20°C (-4°F) to +70°C (+158°F)

TUBE:
Black, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic yarn.

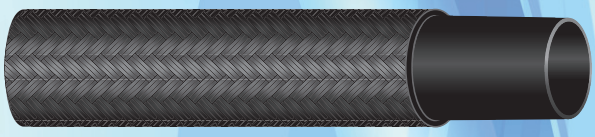
COVER:
Red, smooth, synthetic rubber, weathering and ozone resistant.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3/16"	4.8	12	20	300	60	900	120	400
1/4"	6.4	13	20	300	60	900	120	400
5/16"	7.9	15	20	300	60	900	100	330
3/8"	9.5	17	20	300	60	900	100	330
1/2"	12.7	21	20	300	60	900	100	330
5/8"	15.9	26	20	300	60	900	100	330
3/4"	19.1	29	20	300	60	900	100	330
7/8"	22.2	32	20	300	60	900	100	330
1"	25.4	36	20	300	60	900	100	330
1-1/4"	31.8	44	15	225	45	675	60	200
1-1/2"	38.1	54	15	225	45	675	60	200
2"	50.8	66	15	225	45	675	60	200

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

LOW PRESSURE TEXTILE BRAIDED HOSE



Extrusion

APPLICATION:
Designed for low pressure hydraulic oil lines, and pneumatic lines.
Meet Flame Resistant Certification.

TEMPERATURE:
-40°C (-40°F) to +100°C (+212°F)

TUBE:
Black, smooth, synthetic rubber, oil and heat resistant.

REINFORCEMENT:
High strength synthetic yarn.

COVER:
Black textile braided resistant weathering synthetic fibre.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3/16"	4.8	10	20	300	60	900	100	330
1/4"	6.4	12.7	20	300	60	900	100	330
5/16"	7.9	14.2	20	300	60	900	100	330
3/8"	9.5	16	20	300	60	900	100	330
1/2"	12.7	19	20	300	60	900	100	330
5/8"	15.9	23	20	300	60	900	100	330
3/4"	19.1	26	20	300	60	900	100	330
1"	25.4	33.5	20	300	60	900	100	330

Fuel / Oil Hose

Extrusion

APPLICATION:
Designed for the delivery of petroleum based products with aromatic content up to 50% for fuel connector service.

TEMPERATURE:
-20°C (-4°F) to +70°C (+158°F)

TUBE:
Black, smooth, NBR rubber.

REINFORCEMENT:
High strength synthetic yarn.

COVER:
Black, smooth, synthetic rubber, weathering and ozone resistant.

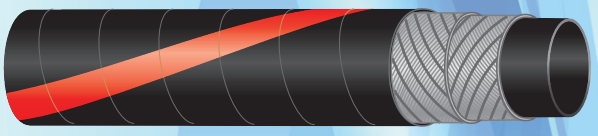
OPTIONAL REQUEST:
Anti-static wire / property.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3/16"	4.8	12	20	300	60	900	120	400
1/4"	6.4	13	20	300	60	900	120	400
5/16"	7.9	15	20	300	60	900	100	330
3/8"	9.5	17	20	300	60	900	100	330
1/2"	12.7	21	20	300	60	900	100	330
5/8"	15.9	26	20	300	60	900	100	330
3/4"	19.1	29	20	300	60	900	100	330
7/8"	22.2	32	20	300	60	900	100	330
1"	25.4	36	20	300	60	900	100	330
1-1/4"	31.8	44	15	225	45	675	60	200
1-3/8"	34.9	47.8	15	225	45	675	60	200
1-1/2"	38.1	54	15	225	45	675	60	200
2"	50.8	66	15	225	45	675	60	200

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Fuel / Oil Discharge Hose



Mandrel

APPLICATION:
Softwall hose designed for the delivery of petroleum products with aromatic content up to 50% for fuel connector service.

TEMPERATURE:
-20°C (-4°F) to +70°C (+158°F)

TUBE:
Black, smooth, NBR rubber.

REINFORCEMENT:
High strength synthetic cord.

COVER:
Black, smooth (wrapped finish), synthetic rubber, weathering and oil resistant.

OPTIONAL REQUEST:
Anti-static wire.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/2"	12.7	21	10	150	30	450	60	200
5/8"	15.9	25	10	150	30	450	60	200
3/4"	19.1	28	10	150	30	450	60	200
7/8"	22.2	31	10	150	30	450	60	200
1"	25.4	34	10	150	30	450	60	200
1-1/8"	28.6	38	10	150	30	450	60	200
1-3/16"	30.2	40	10	150	30	450	60	200
1-1/4"	31.8	42	10	150	30	450	60	200
1-5/16"	33.3	43	10	150	30	450	60	200
1-3/8"	34.9	45	10	150	30	450	60	200
1-1/2"	38.1	48	10	150	30	450	60	200
1-9/16"	39.7	50	10	150	30	450	60	200
1-5/8"	41.3	52	10	150	30	450	60	200
1-3/4"	44.5	55	10	150	30	450	60	200
1-7/8"	47.6	59	10	150	30	450	60	200
2"	50.8	62	10	150	30	450	60	200
2-1/8"	54	66	10	150	30	450	60	200
2-1/4"	57.2	69	10	150	30	450	60	200
2-5/16"	59	71.5	10	150	30	450	40	130
2-3/8"	60.3	72	10	150	30	450	60	200
2-1/2"	63.5	76	10	150	30	450	60	200
2-5/8"	66.7	78	10	150	30	450	40	130
2-3/4"	69.9	82	10	150	30	450	40	130
2-7/8"	73	86	10	150	30	450	60	200
3"	76.2	89	10	150	30	450	60	200
3-1/8"	79.4	94	10	150	30	450	40	130
3-1/2"	88.9	103	10	150	30	450	60	200
3-5/8"	92	106	10	150	30	450	40	130
3-3/4"	95	109	10	150	30	450	*	*
4"	101.6	116	10	150	30	450	60	200
4-3/8"	111	126	10	150	30	450	40	130
4-1/2"	114.3	129	10	150	30	450	30	100
5"	127	142	10	150	30	450	30	100
5-1/2"	140	154	10	150	30	450	30	100
6"	152.4	167	10	150	30	450	30	100
6-5/8"	168.3	184	10	150	30	450	30	100
7"	178	194	10	150	30	450	30	100
8"	203.2	219	10	150	30	450	30	100
8-5/8"	219.1	235	10	150	30	450	30	100
10"	254	272	5	75	15	225	12	40
12"	304.8	323	5	75	15	225	12	40

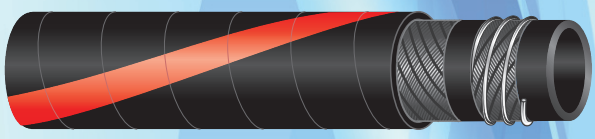
* The specific length is subject to further confirmation.

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Fuel / Oil Suction and Discharge Hose

Mandrel



APPLICATION:
Hardwall hose designed for suction and delivery of petroleum products with aromatic content up to 50% for fuel connector service.

TEMPERATURE:
-20°C (-4°F) to +70°C (+158°F)

TUBE:
Black, smooth, NBR rubber.

REINFORCEMENT:
High strength synthetic cord and helix wire.

COVER:
Black, smooth (wrapped finish), synthetic rubber, weathering and oil resistant.

OPTIONAL REQUEST:
Corrugated (wrapped finish); Anti-static wire.

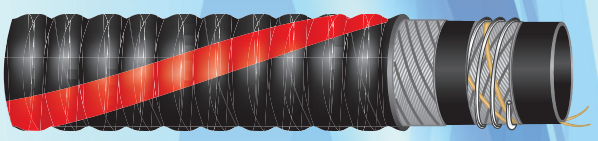
I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/2"	12.7	21	10	150	30	450	60	200
5/8"	15.9	25	10	150	30	450	60	200
3/4"	19.1	29	10	150	30	450	60	200
7/8"	22.2	31	10	150	30	450	60	200
1"	25.4	35	10	150	30	450	60	200
1-1/8"	28.6	38	10	150	30	450	60	200
1-3/16"	30.2	40	10	150	30	450	60	200
1-1/4"	31.8	42	10	150	30	450	60	200
1-5/16"	33.3	43	10	150	30	450	60	200
1-3/8"	34.9	45	10	150	30	450	60	200
1-1/2"	38.1	48	10	150	30	450	60	200
1-9/16"	39.7	50	10	150	30	450	60	200
1-5/8"	41.3	52	10	150	30	450	60	200
1-3/4"	44.5	56	10	150	30	450	60	200
1-7/8"	47.6	60	10	150	30	450	60	200
2"	50.8	63	10	150	30	450	60	200
2-1/8"	54	66	10	150	30	450	60	200
2-1/4"	57.2	69	10	150	30	450	60	200
2-5/16"	59	72.5	10	150	30	450	40	130
2-3/8"	60.3	74	10	150	30	450	60	200
2-1/2"	63.5	77	10	150	30	450	60	200
2-5/8"	66.7	80	10	150	30	450	40	130
2-3/4"	69.9	84	10	150	30	450	40	130
2-7/8"	73	88	10	150	30	450	60	200
3"	76.2	90	10	150	30	450	60	200
3-1/8"	79.4	95	10	150	30	450	40	130
3-1/2"	88.9	104	10	150	30	450	60	200
3-5/8"	92	107	10	150	30	450	40	130
3-3/4"	95	111	10	150	30	450	*	*
4"	101.6	118	10	150	30	450	60	200
4-3/8"	111	127	10	150	30	450	40	130
4-1/2"	114.3	130	10	150	30	450	30	100
5"	127	145	10	150	30	450	30	100
5-1/2"	140	158	10	150	30	450	30	100
6"	152.4	170	10	150	30	450	30	100
6-5/8"	168.3	186	10	150	30	450	30	100
7"	178	198	10	150	30	450	30	100
8"	203.2	224	10	150	30	450	30	100
8-5/8"	219.1	239	10	150	30	450	30	100
10"	254	278	10	150	30	450	12	40
12"	304.8	328	10	150	30	450	12	40

* The specific length is subject to further confirmation.

COMMONLY AVAILABLE UPON REQUEST:
- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Tank Truck Hose

Mandrel



APPLICATION:
Hardwall hose designed for suction and delivery of a wide range of petroleum fuel with aromatic content up to 50% for tank trucks.

TEMPERATURE:
-20°C (-4°F) to +70°C (+158°F)

TUBE:
Black, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic cord and helix wire.

COVER:
Black, corrugated (wrapped finish), synthetic rubber, oil, fuel, and weathering resistant.

OPTIONAL REQUEST:
Smooth (wrapped finish);
Anti-static wire.

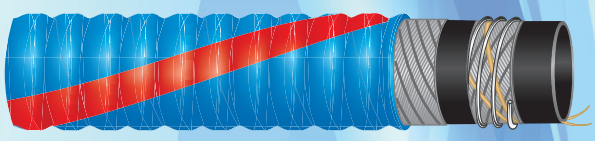
I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/2"	12.7	21	10	150	30	450	60	200
5/8"	15.9	25	10	150	30	450	60	200
3/4"	19.1	29	10	150	30	450	60	200
7/8"	22.2	31	10	150	30	450	60	200
1"	25.4	35	10	150	30	450	60	200
1-1/8"	28.6	38	10	150	30	450	60	200
1-3/16"	30.2	40	10	150	30	450	60	200
1-1/4"	31.8	42	10	150	30	450	60	200
1-5/16"	33.3	43	10	150	30	450	60	200
1-3/8"	34.9	45	10	150	30	450	60	200
1-1/2"	38.1	48	10	150	30	450	60	200
1-9/16"	39.7	50	10	150	30	450	60	200
1-5/8"	41.3	52	10	150	30	450	60	200
1-3/4"	44.5	56	10	150	30	450	60	200
1-7/8"	47.6	60	10	150	30	450	60	200
2"	50.8	63	10	150	30	450	60	200
2-1/8"	54	66	10	150	30	450	60	200
2-1/4"	57.2	69	10	150	30	450	60	200
2-5/16"	59	72.5	10	150	30	450	40	130
2-3/8"	60.3	74	10	150	30	450	60	200
2-1/2"	63.5	77	10	150	30	450	60	200
2-5/8"	66.7	80	10	150	30	450	40	130
2-3/4"	69.9	84	10	150	30	450	40	130
2-7/8"	73	88	10	150	30	450	60	200
3"	76.2	90	10	150	30	450	60	200
3-1/8"	79.4	95	10	150	30	450	40	130
3-1/2"	88.9	104	10	150	30	450	60	200
3-5/8"	92	107	10	150	30	450	40	130
3-3/4"	95	111	10	150	30	450	*	*
4"	101.6	118	10	150	30	450	60	200
4-3/8"	111	127	10	150	30	450	40	130
4-1/2"	114.3	130	10	150	30	450	30	100
5"	127	145	10	150	30	450	30	100
5-1/2"	140	158	10	150	30	450	30	100
6"	152.4	170	10	150	30	450	30	100

* The specific length is subject to further confirmation.

COMMONLY AVAILABLE UPON REQUEST:
- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Low Temperature Tank Truck Hose

Mandrel



APPLICATION:
Hardwall hose designed for suction and delivery of a wide range of petroleum fuel with aromatic content up to 50% for tank trucks.
Suitable for low temperature.

TEMPERATURE:
-45°C (-49°F) to +70°C (+158°F)

TUBE:
Black, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic cord and helix wire.

COVER:
Blue, corrugated (wrapped finish), synthetic rubber, oil, fuel, and weathering resistant.

OPTIONAL REQUEST:
Smooth (wrapped finish);
Anti-static wire.

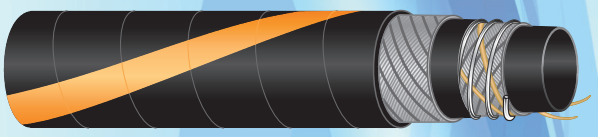
I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/2"	12.7	21	10	150	30	450	60	200
5/8"	15.9	25	10	150	30	450	60	200
3/4"	19.1	29	10	150	30	450	60	200
7/8"	22.2	31	10	150	30	450	60	200
1"	25.4	35	10	150	30	450	60	200
1-1/8"	28.6	38	10	150	30	450	60	200
1-3/16"	30.2	40	10	150	30	450	60	200
1-1/4"	31.8	42	10	150	30	450	60	200
1-5/16"	33.3	43	10	150	30	450	60	200
1-3/8"	34.9	45	10	150	30	450	60	200
1-1/2"	38.1	48	10	150	30	450	60	200
1-9/16"	39.7	50	10	150	30	450	60	200
1-5/8"	41.3	52	10	150	30	450	60	200
1-3/4"	44.5	56	10	150	30	450	60	200
1-7/8"	47.6	60	10	150	30	450	60	200
2"	50.8	63	10	150	30	450	60	200
2-1/8"	54	66	10	150	30	450	60	200
2-1/4"	57.2	69	10	150	30	450	60	200
2-5/16"	59	72.5	10	150	30	450	40	130
2-3/8"	60.3	74	10	150	30	450	60	200
2-1/2"	63.5	77	10	150	30	450	60	200
2-5/8"	66.7	80	10	150	30	450	40	130
2-3/4"	69.9	84	10	150	30	450	40	130
2-7/8"	73	88	10	150	30	450	60	200
3"	76.2	90	10	150	30	450	60	200
3-1/8"	79.4	95	10	150	30	450	40	130
3-1/2"	88.9	104	10	150	30	450	60	200
3-5/8"	92	107	10	150	30	450	40	130
3-3/4"	95	111	10	150	30	450	*	*
4"	101.6	118	10	150	30	450	60	200
4-3/8"	111	127	10	150	30	450	40	130
4-1/2"	114.3	130	10	150	30	450	30	100
5"	127	145	10	150	30	450	30	100
5-1/2"	140	158	10	150	30	450	30	100
6"	152.4	170	10	150	30	450	30	100

* The specific length is subject to further confirmation.

COMMONLY AVAILABLE UPON REQUEST:
- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Dock Hose

Mandrel



APPLICATION:
Heavy duty suction and discharge dock hose designed for transferring petroleum product from tankers and barges, bunkering service and industrial applications.

TEMPERATURE:
-20°C (-4°F) to +82°C (+180°F)

TUBE:
Black, smooth, synthetic rubber, suitable for aromatic content up to 50%.

REINFORCEMENT:
High strength synthetic cord, helix wire and anti-static wires.

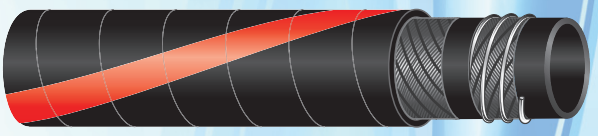
COVER:
Black, smooth (wrapped finish), synthetic rubber resistant to weathering, oil and sea water.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3"	76.2	96	17	255	68	1020	60	200
4"	101.6	126	17	255	68	1020	60	200
5"	127	155	17	255	68	1020	30	100
6"	152.4	185	17	255	68	1020	30	100
8"	203.2	242	17	255	68	1020	30	100
10"	254	298	17	255	68	1020	12	40

Oil Return Hose

(Hardwall)

Mandrel



APPLICATION:
Hardwall hose designed for petroleum and water-bases hydraulic fluids in low pressure and vacuum service.

TEMPERATURE:
-40°C (-40°F) to +100°C (+212°F)

TUBE:
Black, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic cord and helix wire.

COVER:
Black, smooth (wrapped finish), weathering and ozone resistant.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3/4"	19.1	31.5	21	300	83	1200	60	200
1"	25.4	40	17	250	69	1000	60	200
1-1/4"	31.8	46.5	14	200	55	800	60	200
1-1/2"	38.1	53	10	150	41	600	60	200
2"	50.8	65.5	7	100	28	400	60	200
2-1/2"	63.5	78.5	4	62	17	250	60	200
3"	76.2	91	4	56	15	225	60	200

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Fire Fighting Hose

Extrusion

APPLICATION:
Designed with fire-fighting purposes for use with fixed systems.

TEMPERATURE:
-20°C (-4°F) to +60°C (+140°F)

TUBE:
Black, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic yarn.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3/4"	19.1	29	20	300	60	900	100	330
1"	25.4	36	20	300	60	900	100	330
1-1/4"	31.8	44	20	300	60	900	60	200

COVER:
Black, smooth, synthetic rubber, weathering and ozone resistant.

Washdown Hose

Extrusion

APPLICATION:
Designed for hot water wash-down suitable for food processing industry, packing houses, bottling plants and breweries.

TEMPERATURE:
-20°C (-4°F) to +100°C (+212°F)

TUBE:
White, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic yarn.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/2"	12.7	23	16	240	48	720	120	400
5/8"	15.9	27	16	240	48	720	100	330
3/4"	19.1	32	16	240	48	720	100	330
1"	25.4	39	16	240	48	720	100	330

COVER:
White, smooth, synthetic rubber, weathering and ozone resistant.

OPTIONAL REQUEST:
Standard F.D.A. Title 21, 177.2600.

Water Hose

Extrusion

APPLICATION:
Designed for water and non-corrosive fluids used in construction sites and light duty industrial applications.

TEMPERATURE:
-20°C (-4°F) to +70°C (+158°F)

TUBE:
Black, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic yarn.

COVER:
Black, smooth, synthetic rubber, weathering and ozone resistant.

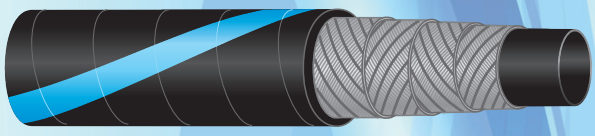
I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3/16"	4.8	12	10	150	30	450	120	400
1/4"	6.4	13	10	150	30	450	120	400
5/16"	7.9	15	10	150	30	450	100	330
3/8"	9.5	16	10	150	30	450	100	330
1/2"	12.7	20	10	150	30	450	100	330
5/8"	15.9	23.5	10	150	30	450	100	330
3/4"	19.1	27	10	150	30	450	100	330
7/8"	22.2	30	10	150	30	450	100	330
1"	25.4	34	10	150	30	450	100	330
1-1/4"	31.8	42	10	150	30	450	60	200
1-1/2"	38.1	50	10	150	30	450	60	200
2"	50.8	66	10	150	30	450	60	200

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Water Discharge Hose

Mandrel



APPLICATION:
Softwall hose designed for water, and non-corrosive fluids used in construction sites and light duty industrial applications.

TEMPERATURE:
-20°C (-4°F) to +70°C (+158°F)

TUBE:
Black, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic cord.

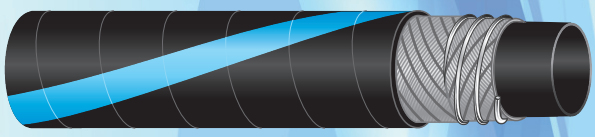
COVER:
Black, smooth (wrapped finish) synthetic rubber, weathering and ozone resistant.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/2"	12.7	21	10	150	30	450	60	200
5/8"	15.9	25	10	150	30	450	60	200
3/4"	19.1	28	10	150	30	450	60	200
7/8"	22.2	31	10	150	30	450	60	200
1"	25.4	34	10	150	30	450	60	200
1-1/8"	28.6	38	10	150	30	450	60	200
1-3/16"	30.2	40	10	150	30	450	60	200
1-1/4"	31.8	42	10	150	30	450	60	200
1-5/16"	33.3	43	10	150	30	450	60	200
1-3/8"	34.9	45	10	150	30	450	60	200
1-1/2"	38.1	48	10	150	30	450	60	200
1-9/16"	39.7	50	10	150	30	450	60	200
1-5/8"	41.3	52	10	150	30	450	60	200
1-3/4"	44.5	55	10	150	30	450	60	200
1-7/8"	47.6	59	10	150	30	450	60	200
2"	50.8	62	10	150	30	450	60	200
2-1/8"	54	66	10	150	30	450	60	200
2-1/4"	57.2	69	10	150	30	450	60	200
2-5/16"	59	71.5	10	150	30	450	40	130
2-3/8"	60.3	72	10	150	30	450	60	200
2-1/2"	63.5	76	10	150	30	450	60	200
2-5/8"	66.7	78	10	150	30	450	40	130
2-3/4"	69.9	82	10	150	30	450	40	130
2-7/8"	73	86	10	150	30	450	60	200
3"	76.2	89	10	150	30	450	60	200
3-1/8"	79.4	94	10	150	30	450	40	130
3-1/2"	88.9	103	10	150	30	450	60	200
3-5/8"	92	106	10	150	30	450	40	130
3-3/4"	95	109	10	150	30	450	*	*
4"	101.6	116	10	150	30	450	60	200
4-3/8"	111	126	10	150	30	450	40	130
4-1/2"	114.3	129	10	150	30	450	30	100
5"	127	142	10	150	30	450	30	100
5-1/2"	140	154	10	150	30	450	30	100
6"	152.4	167	10	150	30	450	30	100
6-5/8"	168.3	184	10	150	30	450	30	100
7"	178	194	10	150	30	450	30	100
8"	203.2	219	10	150	30	450	30	100
8-5/8"	219.1	235	10	150	30	450	30	100
10"	254	272	5	75	15	225	12	40
12"	304.8	323	5	75	15	225	12	40

* The specific length is subject to further confirmation.

COMMONLY AVAILABLE UPON REQUEST:
- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Water Suction and Discharge Hose



Mandrel

APPLICATION:
Hardwall hose designed for suction and discharge of water, and non-corrosive fluids used in construction sites and light duty industrial applications.

TEMPERATURE:
-20°C (-4°F) to +70°C (+158°F)

TUBE:
Black, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic cord and helix wire.

COVER:
Black, smooth (wrapped finish) synthetic rubber, weathering and ozone resistant.

OPTIONAL REQUEST:
Corrugated (wrapped finish);
Cuffed ends in different length.

I.D.		O.D.	Work pressure		Burst pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/2"	12.7	21	10	150	30	450	60	200
5/8"	15.9	25	10	150	30	450	60	200
3/4"	19.1	29	10	150	30	450	60	200
7/8"	22.2	31	10	150	30	450	60	200
1"	25.4	35	10	150	30	450	60	200
1-1/8"	28.6	38	10	150	30	450	60	200
1-3/16"	30.2	40	10	150	30	450	60	200
1-1/4"	31.8	42	10	150	30	450	60	200
1-5/16"	33.3	43	10	150	30	450	60	200
1-3/8"	34.9	45	10	150	30	450	60	200
1-1/2"	38.1	48	10	150	30	450	60	200
1-9/16"	39.7	50	10	150	30	450	60	200
1-5/8"	41.3	52	10	150	30	450	60	200
1-3/4"	44.5	56	10	150	30	450	60	200
1-7/8"	47.6	60	10	150	30	450	60	200
2"	50.8	63	10	150	30	450	60	200
2-1/8"	54	66	10	150	30	450	60	200
2-1/4"	57.2	69	10	150	30	450	60	200
2-5/16"	59	72.5	10	150	30	450	40	130
2-3/8"	60.3	74	10	150	30	450	60	200
2-1/2"	63.5	77	10	150	30	450	60	200
2-5/8"	66.7	80	10	150	30	450	40	130
2-3/4"	69.9	84	10	150	30	450	40	130
2-7/8"	73	88	10	150	30	450	60	200
3"	76.2	90	10	150	30	450	60	200
3-1/8"	79.4	95	10	150	30	450	40	130
3-1/2"	88.9	104	10	150	30	450	60	200
3-5/8"	92	107	10	150	30	450	40	130
3-3/4"	95	111	10	150	30	450	*	*
4"	101.6	118	10	150	30	450	60	200
4-3/8"	111	127	10	150	30	450	40	130
4-1/2"	114.3	130	10	150	30	450	30	100
5"	127	145	10	150	30	450	30	100
5-1/2"	140	158	10	150	30	450	30	100
6"	152.4	170	10	150	30	450	30	100
6-5/8"	168.3	186	10	150	30	450	30	100
7"	178	198	10	150	30	450	30	100
8"	203.2	224	10	150	30	450	30	100
8-5/8"	219.1	239	10	150	30	450	30	100
10"	254	278	10	150	30	450	12	40
12"	304.8	328	10	150	30	450	12	40

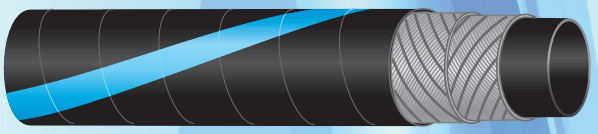
* The specific length is subject to further confirmation.

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Lay Flat Water Discharge Hose

Mandrel



APPLICATION:
Lightweight and lay flat softwall hose designed for the discharge of waste water domestic applications.

TEMPERATURE:
-20°C (-4°F) to +70°C (+158°F)

TUBE:
Black, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic cord.

COVER:
Black, smooth (wrapped finish) synthetic rubber, weathering and ozone resistant.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
1/2"	12.7	20	10	150	30	450	60	200
5/8"	15.9	23.3	10	150	30	450	60	200
3/4"	19.1	26.5	10	150	30	450	60	200
7/8"	22.2	30	10	150	30	450	60	200
1"	25.4	32	10	150	30	450	60	200
1-1/8"	28.6	35	10	150	30	450	60	200
1-3/16"	30.2	38	10	150	30	450	60	200
1-1/4"	31.8	39	10	150	30	450	60	200
1-5/16"	33.3	41	10	150	30	450	60	200
1-3/8"	34.9	43	10	150	30	450	60	200
1-1/2"	38.1	46	10	150	30	450	60	200
1-9/16"	39.7	47.5	10	150	30	450	60	200
1-5/8"	41.3	49	10	150	30	450	60	200
1-3/4"	44.5	52.5	10	150	30	450	60	200
1-7/8"	47.6	55	10	150	30	450	60	200
2"	50.8	58	10	150	30	450	60	200
2-1/8"	54	62	10	150	30	450	60	200
2-1/4"	57.2	65	10	150	30	450	60	200
2-3/8"	60.3	68	10	150	30	450	60	200
2-1/2"	63.5	72	10	150	30	450	60	200
2-5/8"	66.7	75	10	150	30	450	40	130
2-3/4"	69.9	77.5	10	150	30	450	40	130
2-7/8"	73	81	10	150	30	450	60	200
3"	76.2	85	6	90	18	270	60	200
3-1/8"	79.4	88	6	90	18	270	40	130
3-1/2"	88.9	98	6	90	18	270	60	200
4"	101.6	110	6	90	18	270	60	200
4-1/2"	114.3	123	6	90	18	270	30	100
5"	127	137	6	90	18	270	30	100
6"	152.4	164	6	90	18	270	30	100
6-5/8"	168.3	181	6	90	18	270	30	100
8"	203.2	217	6	90	18	270	30	100
8-5/8"	219.1	233	6	90	18	270	30	100
10"	254	268	5	75	15	225	12	40
12"	304.8	319	5	75	15	225	12	40

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

LPG Hose

Extrusion

APPLICATION:
Designed for welding / cutting purpose in shipbuilding, civil works and other related industries.

TEMPERATURE:
-20°C (-4°F) to +70°C (+158°F)

TUBE:
Black, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic yarn.

COVER:
Orange, smooth, synthetic rubber.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3/16"	4.8	12	20	300	60	900	120	400
1/4"	6.4	14	20	300	60	900	120	400
5/16"	7.9	16	20	300	60	900	100	330
3/8"	9.5	17	20	300	60	900	100	330
1/2"	12.7	22	20	300	60	900	100	330

OPTIONAL REQUEST:
Standard ISO 3821 (formerly known as EN559); AS/NZS 1869:1996 Class C.

Single Line Welding Hose

Extrusion

APPLICATION:
Designed for welding, cutting and allied processes. Specific welding hose catering for oxygen, carbon dioxide, nitrogen, argon, and fuel gases including acetylene, natural gas, methane and propane available upon request.

TEMPERATURE:
-20°C (-4°F) to +70°C (+158°F)

TUBE:
Black, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic yarn.

COVER:
Blue / Green / Red, Smooth, synthetic rubber.

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3/16"	4.8	12	20	300	60	900	120	400
1/4"	6.4	13	20	300	60	900	120	400
5/16"	7.9	15	20	300	60	900	100	330
3/8"	9.5	17	20	300	60	900	100	330
1/2"	12.7	21	20	300	60	900	100	330
5/8"	15.9	26	20	300	60	900	100	330
3/4"	19.1	29	20	300	60	900	100	330
7/8"	22.2	32	20	300	60	900	100	330
1"	25.4	36	20	300	60	900	100	330

OPTIONAL REQUEST:
Standard ISO 3821 (formerly known as EN559)

Twin Line Welding Hose

Extrusion

APPLICATION:
Extruded hose used for welding, cutting and allied processes.

TEMPERATURE:
-20°C (-4°F) to +70°C (+158°F)

TUBE:
Black, smooth, synthetic rubber.

REINFORCEMENT:
High strength synthetic yarn.

COVER:
Red & Blue, smooth, synthetic rubber.

OPTIONAL REQUEST:
Standard ISO 3821 (formerly known as EN559)

I.D.		O.D.	Work Pressure		Burst Pressure		Max. Length	
inch	mm	mm	bar	psi	bar	psi	m	ft
3/16"	4.8 + 4.8	12 + 12	20	300	60	900	120	400
1/4"	6.4 + 6.4	13 + 13	20	300	60	900	120	400
5/16"	7.9 + 7.9	15 + 15	20	300	60	900	120	400
5/16" + 3/8"	7.9 + 9.5	16 + 16	20	300	60	900	100	330
3/8"	9.5 + 9.5	17 + 17	20	300	60	900	100	330

COMMONLY AVAILABLE UPON REQUEST:

- Different diameter.
- Different colour of rubber.
- Different working pressure.
- Different length.
- Different temperature.

Chemical Guide

The chemical guide in this section is offered as a general indication of the compatibility of the various materials used in hose with the chemicals and fluids listed. The basis for the ratings in this guide includes actual service experience, the advice of various polymer suppliers, and the considered opinion of our rubber chemists. When in doubt, a sample of the compound should always be tested with the particular chemical it is to handle. Some of the variables that come into play in the resistance of a compound to chemical attack are:

1. Temperature of the Material Transmitted:

Higher temperatures increase the effect of chemicals on rubber compounds. The increase varies with the polymer and the chemical. A compound quite suitable at room temperature might fail very quickly at higher temperatures.

2. Service Conditions:

A rubber compound usually swells when exposed to a chemical. With a given percent of swell, a hose tube may function satisfactorily if the hose is in a static condition, but fail quickly if the hose is subject to flexing.

3. The Grade or Blend of the Rubber Compound:

Basic rubber polymers are sometimes mixed or blended together to enhance a particular property for a specific service. The reaction to a particular chemical blend of polymers may, therefore, be somewhat different from the reaction to the single ones. When in doubt, a sample of the compound should always be tested with the particular chemical it is to handle.

CHEMICAL RESISTANCE OF HOSE COMPOUNDS

COMMON NAME	ASTM Designation D1418-93	COMPOSITION	GENERAL PROPERTIES
Natural rubber	NR	Isoprene rubber	Excellent physical properties, including abrasion resistance. Not oil resistant.
SBR	SBR	Styrene-butadiene rubber	Good physical properties, including abrasion resistance. Not oil resistant.
Butyl rubber	IIR	Isobutene-isoprene rubber	Very good weathering resistance. Low permeability to air. Good physical properties. Poor resistance to petroleum based fluids.
EPDM	EPDM	Ethylene-propylene-diene-terpolymer	Good general purpose polymer. Excellent heat, ozone and weathering resistance. Not oil resistant.
Cross linke polyethylene	XLPE	Cross linked polyethylene	Excellent resistance to most solvents, oils and chemicals. Do not confuse with chemical properties of standard polyethylene.
Ultra high molecular weight polyethylene	UHMWPE	Ultra high molecular weight polyethylene	Excellent resistance to most solvents, chemicals and hydrocarbons. Excellent abrasion and wear resistance. Inert and suitable for food contact. Do not confuse with chemical properties of standard polyethylene.
Nitrile rubber	NBR	Acrylonitrile-butadiene	Excellent oil resistance. Good physical properties.
Neoprene	CR	Chloroprene rubber	Excellent weathering resistance. Flame retardant. Good oil resistance. Good physical properties.
Hypalon®	CSM	Chloro-sulfonated	Excellent ozone, weathering and acid resistance. Good abrasion and heat resistance. Can be compounded for good oil resistance.

Chemical Resistance Chart

The following data is based on tests and believed to be reliable; however, we emphasise that the tabulation should be used as a guide only, since it does not take into consideration all variables such as elevated temperatures, fluid contamination, concentration, etc. that may be encountered in actual use. All critical applications should be tested.

Note: All data based on 20°C (68°F) unless otherwise noted.

Key: • Blank = No Data • E = Excellent • G = Good • F = Fair • C = Conditional • X = Unsatisfactory

COMPOUND / CHEMICAL OR MATERIAL CONVEYED	NR	SBR	IIR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Acetaldehyde	F	X	E	E	E	E	X	C	F
Acetic Acid, Glacial	C	X	G	G	E	E	X	F	C
Acetic Acid, 10%	G	F	G	E	E	E	E	E	E
Acetic Acid, 50%	X	F	G	E	E	E	F	F	E
Acetic Anhydride	F	X	C	G	E	E	X	G	E
Acetic Oxide	F	X	G	G	E	E	X	G	E
Acetone	C	C	E	E	E	E	X	C	X
Acetone Cyanohydrin	F		E	E			X	G	F
Acetonitrile	G		E	E			X	E	G
Acetophenone	C	X	G	E	E	E	X	X	X
Acetyl Acetone	X	X	E	E			X	X	X
Acetyl Chloride	X	X	X	X			X	X	C
Acetyl Oxide	F		G	G	E	E	X	G	E
Acetylene	C	F	E	E	E	E	E	E	C
Acetylene Dichloride	X	X	F	C			X	X	X
Acetylene Terachloride	X		X	C			X	C	X
Acrolein	G	F	E	E			F	G	G
Acrylonitrile	C	F	X	E	E	E	X	X	C
Acrylic Acid	X			X			X	X	G
Adipic Acid	E		X	C	E	E	E	E	G
Air, +300 °F	X	X	G	G			G	G	G
Alk-Tri	X		X	X			X	X	X
Allyl Alcohol	E		E	E	E	E	E	E	E
Allyl Bromide	X		X	X			X	X	X
Allyl Chloride	X	E	C	X	E	F	G	X	X
Alum	E		E	G	E	E	C	E	E
Aluminium Acetate	E	X	G	E			C	C	F
Aluminium Chloride	E	E	E	E	E	E	E	E	E
Aluminium Fluoride	E	E	E	E	E	E	E	E	E
Aluminium Formate	X		G	E			X	E	X
Aluminium Hydroxide	E	G	E	E	E	E	E	E	E
Aluminium Nitrate	E	E	E	E			E	E	E
Aluminium Sulfate	E	G	A	E	E	E	E	G	E
Amines-Mixed	C	G		G			X	C	X
Aminobenzene	X	X	E	C	E	E	X	X	C
Aminodimethilbenzene	X		G	C			C	X	F
Aminoethane	C	X	G	E	E	E	C	C	F
Aminoxylene	X		G	E			C	X	X
Ammonium Carbonate	E	E	E	E			C	E	C
Ammonium Chloride	E	E	E	E	E	E	G	E	E
Ammonium Hydroxide	G	X	G	E	E	E	C	E	E
Ammonium Nitrate	E	E	E	E	E	E	E	E	E
Ammonium Phosphate, Dibasic	E	E	E	E	E	E	E	E	E
Ammonium Sulfate	E	G	E	E	E	E	E	E	E
Ammonium Sulfide	E	G	E	E	E	E	C	E	E
Ammonium Thiosulfate	E		E	E			C	E	E
Amyl Acetate	C	X	G	C	E	E	X	X	X
Amyl Acetone	X		G	G			X	X	X
Amyl Alcohol	C	G	E	E	E	E	C	C	E
Amyl Bromide	X		X	C			X	X	X
Amyl Chloride	X	X	X	X	E	E	X	X	X
Amyl Ether	X		X	X			C	X	F
Amylamine	F		G	X			F	C	F
Anethole	X		X	X			X	X	X
Aniline	X	X	E	C	E	E	X	X	C

COMPOUND / CHEMICAL OR MATERIAL CONVEYED	NR	SBR	IIR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Aniline Dyes	C	G	G	C	E	E	X	C	G
Aniline Oil	X	X	G	C	E	E	X	X	C
Animal Fats	X	X	C	C	E	E	E	C	F
Antimony Pentachloride	X			C	E	E	X	C	X
Aqua Regia	X	X	C	C	X	X	X	X	C
Argon	X	C	G	E			E	G	X
Arsenic Acid	E	E	E	E	E	E	E	E	E
Asphalt	X	X	X	X	E	E	C	C	F
Astm Fuel A	X	X	X	X			E	C	C
Astm Fuel B	X	X	X	X			C	X	X
Astm Fuel C	X	X	X	X			C	X	X
Astm Oil No.1	X	X	X	X	E	E	E	E	C
Astm Oil No.2	X	X	X	X	E	E	E	C	X
Astm Oil No.3	X	X	X	X	E	E	E	C	C
Astm Oil No.4	X	X	X	X			C	X	X
Automatic Trasmission Fluid	X	X	X	X			E	C	C
Banana Oil	X		C	C			X	X	C
Barium Chloride	E	E	E	E	E	E	E	E	E
Barium Hydroxide	E	E	E	E	E	E	E	E	E
Barium Sulphide	E	G	E	E	E	E	E	E	E
Beer	E	E	E	E	E	E	E	E	E
Beet Sugar Liquors	E	E	E	E	E	E	E	C	E
Benzal Chloride			G				X		
Benzaldehyde	X	X	G	E	E	E	X	X	X
Benzene	X	X	X	C	E	F	X	C	C
Benzene Carboxylic Acid	X		E	C			X	E	C
Benzine		X	X	X	E	E	E	C	C
Benzoic Acid	X	X	C	C			X	E	C
Benzol	X	X	X	C	E	F	X	C	C
Benzotrichloride	X			E			X	X	X
Benzyl Acetate	X		E	E			X	E	G
Benzyl Alcohol	X	X	E	C			X	C	C
Benzyl Chloride	X	X	X	X			X	X	X
Benzyl Ether	X	X	G	C			X	X	X
Black Sulfate Liquor	G	G	G	G	E	E	G	G	G
Bleach	C	X	E	E	G	F	X	C	E
Borax Solution	C	G	E	E	E	E	C	E	E
Boric Acid	E	E	E	E	E	E	E	E	E
Brake Fluid (Hd-557)12 Days	X	E	E	E			C	C	C
Brine	E		E	E	E	E	E	E	E
Bromobenzene	X	X	X	X			X	X	X
Bromochlorometane	X		C	G	F	F	X	X	X
Bromoethane	C	X	C	X	E	E	C	X	X
Bromotoluene	X		X				X		X
Bunker Oil	X	X	X	X			E	G	C
Butadiene	X	X	X	X	E	E	X	X	G
Butane	X	X	X	X	E	E	E	E	C
Butanoic Acid	C		X	C			C	X	C
Butanol	E	E	C	C	E	E	E	E	E
Butanone	X	X	E	E	E	E	X	X	X
Butoxyethanol	X		C	E			C	X	G
Butyl Acetate	X	X	C	C	E	E	X	X	X
Butyl Acrylate	X	X	X	C	E	E	X	X	X
Butyl Alcohol	E	E	C	C	E	E	E	E	E
Butyl Aldehyde	X	X	C	C	E	E	X	X	X

Chemical Resistance Chart (Continued)

CHEMICAL OR MATERIAL CONVEYED / COMPOUND	NR	SBR	IIR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Butyl Benzyl Phthalate	X		E	E	E	E	X	E	X
Butyl Carbitol	X	X	E	E			X	X	C
Butyl Cellosolve	X	X	C	C	E	E	C	X	G
Butyl Chloride	X		F	X			X	X	X
Butyl Ether	X	X	C	C	E	E	X	C	X
Butyl Ether Acetaldehyde	X		G	X			X	X	X
Butyl Ethyl Ether	X		X	F			G	X	C
Butyl Oleate	X	X	C	C			X	X	X
Butyl Phthalate	X	X	G	E	E	E	X	X	X
Butyl Stearate	X	X	C	X	E	E	C	X	X
Butylene	X	X	X	X			C	C	C
Butyraldehyde	X	X	C	C	E	E	X	X	X
Butyric Acid	C	X	X	C	E	E	C	X	C
Butyric Anhydride	F		F	E			C	G	G
Cadmium Acetate	X		E				X		E
Calcium Aluminate	E		E				E		E
Calcium Bichromate			E	E			C	E	F
Calcium Bisulfide	X	G	X	E			C	E	F
Calcium Chloride	E	E	E	E	E	E	E	E	E
Calcium Hydroxide	E	E	E	E	E	E	E	E	E
Calcium Hypochlorite	C	X	E	E	E	E	C	C	E
Calcium Nitrate	E	E	E	E			E	E	E
Calcium Sulfide	C	X	E	E			E	E	E
Calcium Acetate	E	X	E	E			C	C	C
Caprylic Acid	C		F				F		G
Carbamide	E		E	E	E	E	G	G	E
Carbitol	C	E	C	C	E	E	C	C	C
Carbolic Acid Phenol	C		C						C
Carbon Dioxide	G	G	E	G	E	E	E	G	E
Carbon Disulfide	X		X	X	C	C	X	X	X
Carbon Monoxide	C	G	E	E	E	E	E	C	C
Carbon Tetrachloride	X		X	X	E	E	X	X	X
Carbonic Acid	E	G	E	E	E	E	C	E	E
Castor Oil	E	E	C	C	E	E	E	E	E
Caustic Soda	E	E	E	G	E	E	C	G	E
Cellosolve Acetate	C	X	C	G	E	E	X	X	X
Celluguard	E	E	E	E			E	E	E
Cetylic Acid	C	G	C	C	E	E	E	G	C
China Wood Oil	X	X	C	X	E	E	E	C	C
Chlorinated Solvents	X	X	X	X	E	E	X	X	X
Chloro-2-Propanone	X		C						X
Chloroacetic Acid	X	X	C	C	E	E	X	X	G
Chloroacetone	X	X	C	E	E	E	X	X	X
Chlorobenzene	X	X	X	X	E	E	X	X	X
Chlorobutane	X		F	X			X	X	X
Chlorodane	X	X	X	X			C	C	C
Chloroethyl Benzene	X		X	X			C	X	X
Chloroform	X	X	X	X	F	F	X	X	X
Chloropentane	X		X	X			X	X	X
Chlorosulfonic Acid	X	X	X	X	F	X	X	X	X
Chlorotoluene	X	X	X	X			X	X	X
Chlorox	X	X	C	G			C	C	C
Chrome Plating Solutions	X	X	C	C			X	X	X
Chromic Acid	C	X	C	C	E	E	X	X	E
Chromium Trioxide	X	X	G	C			X	X	E
Cinnamene	X	X	X	X			C	X	X
Cis-9-Octadecenoic Acid	X	X	X	C	E	E	G	C	C
Citric Acid	E	E	E	E	E	E	E	E	E
Coal Tar Oil	X	X	X	X	E	E	E	G	F
Coal Tar	X	X	X	X	E	E	C	C	C
Coal Tar Naphtha	X		X	X	E	E	X	X	X
Coconut Oil	X	X	C	C	E	E	E	C	C
Coke Oven Gas	C	X	C	X	E	E	X	X	C
Coolanol	X	X	X	X			E	C	C
Copper Chloride	E	E	E	E	E	E	E	C	C

CHEMICAL OR MATERIAL CONVEYED / COMPOUND	NR	SBR	IIR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Copper Cyanide	E	E	E	E	E	E	E	E	E
Copper Hydrate	F		E				G		G
Copper Hydroxide	F		E				G		G
Copper Sulfate	C	G	C	E	E	E	E	E	E
Corn Oil	X	X	C	C	E	E	E	C	C
Cottonseed Oil	X	X	C	C	E	E	E	C	C
Creosote	X	X	X	X	E	E	C	C	X
Cresols	X	X	X	X	E	E	X	X	X
Cresylic Acid	X	X	X	X	E	E	X	X	X
Crotonaldehyde	X	F	E	E	E	E	X	X	X
Crude Oil	X	X	X	X	E	E	C	C	C
Cumene	X	X	X	X			X	X	X
Cupric Hydroxide	F		E				G		G
Cupric Nitrate	G		E	C	E	E	C	E	E
Cupric Sulfate	C	G	C	E	E	E	E	E	E
Cutting Oil	C	X	X	X			E	C	C
Cyclohexane	X	X	X	X	E	E	E	X	C
Cyclohexanol	C	X	X	X	E	E	G	C	C
Cyclohexanone	X	X	C	C	E	E	X	X	X
Cyclopentane	X		X	X			G	C	X
Cyclopentanone	X		X				X		X
Cyclopentil Alcohol				C			X	F	
D-Furaldehyde	X		C	E			G	F	C
Ddt In Kerosene	X	X	X	X			E	C	C
Decahydronaphthalene	X	E	X	X	E	E	X	X	X
Decalin	X	E	X	X	E	E	X	X	X
Decyl Alcohol	X		X	X			E	X	C
Decyl Aldehyde	X		F	X			X		X
Decyl Butyl Phthalate	X		E				X		X
Detergent, Water Solution	E	G	E	E	E	E	E	C	C
Developing Fluid	E	G	C	C			E	E	E
Dextron	X	X	X	X			E	C	X
Di (2Ethylhexyl) Adipate	X		E	G	G	G	X	X	X
Di (2Ethylhexyl) Phthalate	X	X	C	C	E	E	X	X	X
Di-Iso-Butylene	X	X	X	X	E		C	C	X
Di-Iso-Decyl Phthalate	X		E	E			X	X	X
Di-Iso-Propanolamine	G		E	E			G	G	F
Di-Iso-Propyl Ether	X		X	X	E	E	G	C	C
Di-Iso-Propyl Ketone	X	X	E	E	E		X	X	X
Di-P-Mentha-1,8-Diene	X		X	X			C	X	X
Diacetone Alcohol	X	X	E	E	E	E	X	F	C
Diacetylmethane		X	E	E			X	X	X
Diammonium Orthophosphate				E			E	E	
Diamyl Naphthalene	X		E		E	E			X
Diamylamine	G	X	E	E			G	C	C
Diamylene	X		X	X				X	X
Diamylphenol	X		X		E	E	X		X
Dibenzyl Ether	X	X	C	C			X	X	X
Dibromobenzene	X		X	X			X	X	X
Dibromomethane	X		X	C			X	X	X
Dibutyl Ether	X	X	C	C	E	E	X	C	X
Dibutyl Phthalate	X	X	C	C	E	E	X	X	X
Dibutyl Sebacate	X	X	C	C	E	E	X	X	X
Dibutylamine	X	X	X	F			X	C	C
Dicalcium Phosphate	E		E	E			E	E	E
Dichloroethylene	X		C	C	F	F	X	X	X
Dichloroacetic Acid	X	X	C	X	E	E	X	X	X
Dichlorobenzene	X	X	X	X			X	X	X
Dichlorobutane	X	X	X	X			C	X	X
Dichlorodifluoromethane	C	E	C	C	E	G	C	C	C
Dichloroethane	X	X	C	X	E	E	X	X	X
Dichloroethyl Ether	X		X	X			X	X	X
Dichlorohexane	X		X	X			X	X	X
Dichloromethane	X	X	X	X			X	X	X

Chemical Resistance Chart (Continued)

CHEMICAL OR MATERIAL CONVEYED / COMPOUND	NR	SBR	IIR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Dichloropentane	X	X	X	X			X	X	X
Dichloropropane	X		X	X	G	G	F	X	X
Dichloropropene	X		X	X	G	G	C	X	X
Diesel Oil	X	X	X	X	E	E	E	C	C
Diethanol Amine	G	X	E	G			C	G	F
Diethylbenzene	X	X	X						X
Diethyl Ether	X	X	X	X	E	E	X	X	X
Diethyl Ketone	X		G	G	E	E	X	X	X
Diethyl Oxalate	F		X	X			X	X	X
Diethyl Phthalate	X		X	F	E	E	X	X	X
Diethyl Sebacate	X	X	G	F			C	X	F
Diethyl Sulfate	X	E	C	E			X	E	X
Diethyl Amine	C	G	C	C	E	E	C	C	C
Diethylene Glycol	E	E	E	E	E	E	E	E	E
Diethylene Oxide	X		X	E			X	X	X
Diethylenetriamine	G	X	E	E			G	X	F
Dihydroxy Succinic Acid	E		G	G			G	G	E
Dihydroxydiethyl Ether	E		E	E	E	E	E	E	E
Diisobutyl Ketone	X	X	G	E	E	E	X	X	X
Diisodecyl Phthalate	X		E	E	E	E	X	X	X
Diisooctyl Adipate	X		E	E			X	X	X
Diisooctyl Phthalate	X		E	G	E	E	X	X	X
Dimethyl Carbinol	E		E	E	E	E	C	G	E
Dimethyl Ketone	C	F	E	E	E	E	X	C	X
Dimethyl Phthalate	X	X	C	C	E	E	X	X	X
Dimethyl Sulfate	X		G	X	E	E	X	X	X
Dimethyl Sulfide	X		F	X			X	X	X
Dimethylamine	G	X	G	E	E	E	F	X	X
Dimethylaniline	X	X	G	E			X	X	X
Dimethylbenzene	X	X	X	X			X	X	X
Dimethylbutane	X		X						X
Dioxane	X	X	C	C	E	E	X	X	X
Dipentene	X	X	X	X			C	X	X
Dipentylamine	G	X	E	E			G	C	C
Dipropylene Glycol	E		E	E			E	E	E
Disodium Phosphate	E		E	E			E	E	E
Divinyl Benzene	X	X	X	X			X	X	X
Dowthermn, A And E	X	X	X	X			X	X	C
Dry Cleaning Fluids	X	X	X	X			C	X	X
Ethanoic Acid		G		C	E	E	C	C	
Ethanol	E	E	E	E	E	E	C	E	E
Ethanolamine	C	X	C	E			C	C	C
Ethers	X	X	X	X	E	E	F	X	X
Ethyl Acetate	X	X	C	C	E	E	X	X	X
Ethyl Acetoacetate	C	F	C	C			X	X	X
Ethyl Acetone	X		G	G			X	X	X
Ethyl Acrylate	X	X	C	C			X	X	X
Ethyl Alcohol	E	E	E	E	E	E	C	E	E
Ethyl Aldehyde	C		E	E	E	E	X	X	F
Ethyl Aluminium Dichloride	X		X				X		X
Ethyl Benzene	X	X	X	X	E	E	X	X	X
Ethyl Bromide	C	X	X	X	E	E	C	X	X
Ethyl Butyl Acetate	X		E				X		G
Ethyl Butyl Alcohol	E		E						E
Ethyl Cellulose	C	G	C	C	E	E	C	C	C
Ethyl Chloride	C	G	E	C	E	E	E	X	C
Ethyl Dichloride	X	X	F	X	E	E	X	X	X
Ethyl Ether	X	X	X	X	E	E	X	X	X
Ethyl Formate	X	X	C	C			X	C	C
Ethyl Iodide	X		F	F	E	E	X	X	X
Ethyl Oxalate	E	X	X	E			X	X	X
Ethyl Phthalate	X		X	F	E	E	X	X	X
Ethyl Silicate	C	G	E	E			E	E	
Ethyl-N-Butyl Ketone	X	G	G				X	X	X

CHEMICAL OR MATERIAL CONVEYED / COMPOUND	NR	SBR	IIR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Ethyl-1-Butanol	E		E	E			E	E	E
Ethylamine	C	X	C	E			C	C	F
Ethylene Chlorohydrin	C	G	C	C			X	C	C
Ethylene Diamine	C	G	E	E	E	E	C	E	C
Ethylene Dibromide	X	X	C	C	F	F	X	X	X
Ethylene Dichloride	X	X	C	X	F	F	X	X	X
Ethylene Glycol Monobutyl Ether	X	X	E	E	E	E	F	X	C
Ethylene Glycol Monoethyl Ether	X		C	C	E	E	C	X	X
Ethylene Glycol	E	E	E	E	E	E	E	E	E
Ethylene Oxide	X	X	C	C	E	E	X	X	X
Fatty Acids	X	X	C	X	E	G	C	C	C
Ferric Bromide	E		E				E		E
Ferric Chloride	E	E	E	E		E	E	C	C
Ferric Nitrate	E	E	E	E		E	E	E	E
Ferric Sulfate	E	E	E	E		E	E	E	E
Ferrous Acetate	X		E	G			X	X	E
Ferrous Chloride	E		E	E		E	E	E	E
Ferrous Sulfate	E	E	E	E		E	E	E	E
Fluoroboric Acid	E	E	C	E	E	E	E	E	E
Fluorine	X		X	E	G	G	X	X	X
Fluorosilicic Acid	E	G	E	E	E	E	E	E	E
Formaldehyde	C	G	C	C	E	E	C	C	C
Formalin	C	G	C	E	E	E	G	G	C
Formic Acid	C	E	E	E	E	E	C	C	E
Freon 113	C	G	X	X			E	E	C
Freon 12	X	E	X	C	F	G	C	C	E
Freon 22	C	E	C	C	F	E	X	E	E
Fuel A	X		X	X			E	C	C
Fuel B	X		X	X			C	X	X
Fuel Oil	X	X	X	X	E	E	E	C	C
Furan	X	X	X	X	E	E	X	X	X
Furfural	X	X	C	C	E	E	X	X	C
Fuel A (Astm)	X	X	X	X			E	C	X
Fuel B (Astm)	X	X	X	X			C	X	X
Fuel Oil	X	X	X	X	E	E	E	C	C
Furan	X	X	X	X	E	E	X	X	X
Furfural	X	X	E	C	E	E	X	X	X
Furfuran	X	X	X	X	E	E	X	X	X
Furfuryl Alcohol	X	X	C	C	E	E	X	X	X
Gallic Acid	E	G	C	C	E	E	C	C	C
Gallotannic Acid	E		G	E				E	E
Gasoline	C	X	C	X	E	E	E	X	C
Glacial Acrylic Acid	X		X	X			X	X	G
Gluconic Acid	X		F	E			C	E	G
Glucose	E	E	E	E	E	E	E	C	E
Glycerine	E	E	E	E	E	E	E	E	E
Glycerol	E	E	E	E	E	E	E	E	E
Glycogenic Acid	X		F	E			F	E	G
Glycols	E	E	E	E	E	E	E	E	E
Glyconic Acid	X		F	E			F	E	G
Glyclyl Alcohol									
Grease	X	X	X	X			E	F	C
Green Sulphate Liquor	C	G	E	E			C	C	G
Helium	E	E	E	E			E	E	E
Heptaldehyde	X	X	C	C			E	C	X
Heptanal	X	X	C	C			E	C	X
Heptane	X	X	X	X		E	E	C	C
Heptanoic Acid	X		X	X			E	C	C
Hexadecanoic Acid	E	G	G	G	E	E	E	X	X
Hexaldehyde	X	X	C	C	E	E	X	C	C
Hexane	X	X	X	X	E	E	E	C	C
Hexanol	E	E	C	C	E	E	C	C	C
Hexene	X	X	X	X			C	C	C
Hexyl Alcohol	E	E	C	C	E	E	C	C	C

Chemical Resistance Chart (Continued)

CHEMICAL OR MATERIAL CONVEYED / COMPOUND	NR	SBR	IIR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Hexyl Methyl Ketone	X		G	G			X	C	X
Hexylamine	F		G	G			F	G	F
Hexylene Glycol	E		E	F			C	E	E
Histowax	X		X						C
Hydraulic & Motor Oil	X	X	C	C	E	E	C	C	C
Hydrazine	C	G	C	E			C	C	C
Hydrobromic Acid	E	X	E	E	E	E	X	C	E
Hydrocloric Acid	C	X	C	C	C	C	C	C	C
Hydrocyanic Acid	C	G	C	E			C	C	E
Hydrofluoric Acid	C	X	C	C	E	E	C	C	E
Hydrofluosilicic Acid	E	G	E	E	E	E	X	C	E
Hydrogen Chloride Anhydrous	X	X	E	E			X	C	E
Hydrogen Dioxide	G		G	G			F	F	C
Hydrogen Gas	C	G	E	E	E	E	E	E	E
Hydrogen Peroxide Over 10%	C	X	C	C	C	F	X	X	C
Hydrogen Peroxide 10%	G	X	G	G	E	E	F	F	C
Hydrogen Sulfide	X	X	E	E	E	E	X	E	G
Hydroxy Benzene	C		C	C			X	X	C
Hydroxyisobutyronirile	C		E	E			C	G	F
Hydroxytoluene	X	X	C	C			X	C	C
Iminodi-2-Propanol	G		E	E			G	G	F
Iminodiethanol	C	X	C	G			C	G	F
Iodine	X	G	C	C	E	E	C	C	C
Iodine Pentafluoride	X	X	X	X			X	X	X
Iodoform	X		X	E			E	X	X
Iso-Butanal	X	G		G	E	E	X	F	
Iso-Butylamine	F		E	G			X	X	F
Iso-Butylbromide	X		X	X			X	X	X
Iso-Butylcarbinol	X		E	E			E	E	E
Isocyanates	F		G	G	E	E	C	X	F
Isooctane	X	X	X	X	E	E	E	C	C
Isopropyl Acetate	X	X	C	C	E	E	X	X	X
Isopropyl Alcohol	E	E	E	E	E	E	C	C	E
Isopropyl Ether	X	X	X	X	E	E	G	X	C
Jet Fuels	X	X	X	X	E	E	C	C	X
Jp-4 Oil	X	X	X	X			E	X	X
Kerosene	X	X	X	X	E	E	E	C	C
Ketones	C	E	G	E	E	E	C	C	C
Lacquer Solvents	X	X	X	E	E	X	X	X	X
Lactic Acid - Cold	E	G	E	C	G	G	C	C	E
Lactic Acid - Hot	E	X	E	C	G	G	C	C	E
Lard	X	X	C	C	E	E	E	C	C
Lavender Oil	X	X	X	X			C	X	X
Lead Acetate	E	X	E	E	E	E	C	C	X
Lead Nitrate	E	E	E	E			E	E	E
Lead Sulfate	E		E	E	E	E	E	E	E
Lime	E		E	E	E	E	G	G	G
Lime Bleach	C	E	E	E			C	C	E
Lime Sulfur	C	X	E	E	E	E	E	E	E
Limonene	X		X	X			C	X	X
Linoleic Acid	X	X	X	X			C	C	X
Linseed Oil	X	X	C	C	E	E	E	C	C
Liquid Petroleum Gas	X	X	X	X	E	E	E	G	C
Lubricating Oil	X	X	X	X	E	E	C	C	C
Lye Solutions	E	G	E	G			C	G	E
Mek	X	X	E	E	E	E	X	X	X
Magnesium Acetate	X	X	E	G			X	X	E
Magnesium Chloride	E	E	E	E	E	E	E	E	E
Magnesium Hydrate	C	G	E	E	E	E	C	C	E
Magnesium Hydroxyde	C	G	E	E	E	E	C	C	E
Magnesium Sulfate	C	G	E	E	E	E	E	E	E
Maleic Acid	X	X	X	C	E	E	X	X	X
Maleic Anhydride	X	X	C	C			X	X	X
Malic Acid	E	G	X	C	C	C	E	C	C
Manganous Sulfate	G		G	E			E	E	E

CHEMICAL OR MATERIAL CONVEYED / COMPOUND	NR	SBR	IIR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Mercury	E	E	E	E	E	E	E	E	E
Mercury Vapors	G	E	E	E			E	G	E
Mesityl Oxide	X	X	F	C			X	X	X
Methallyl Alcohol	E		E	E			E	E	E
Methallyl Chloride	X		X					X	X
Methane Carboxylic Acid (See Acetic Acid)					E	E			
Methanoic Acid	C	E	E	E	E	E	G	E	E
Methanol	E	E	C	E	E	E	C	E	E
Methoxy Ethanol	E		E	E	E	E	C	E	E
Methyl Acetate	C	X	C	C			X	C	X
Methyl Acetoacetate	X	X	C	C			X	X	X
Methyl Acetone	X	X	E	E	E	E	X	X	X
Methyl Allyl Chloride	X		X					X	X
Methyl Amyl Carbinol	G		G	E			E	G	E
Methyl Benzene	X	X	X	X	F	F	X	X	X
Methyl Bromide	X	X	C	X	F	F	C	X	X
Methyl Butane	X		X	X			E	X	X
Methyl Butyl Ketone	X	X	E	E	E	E	X	X	X
Methyl Carbitol				G			F	F	
Methyl Cellosolve	X	X	C	C	E	E	C	C	C
Methyl Chloride	X	X	C	C	F	F	X	X	X
Methyl Cyanide	G		E	E			C	E	G
Methyl Ethyl Ketone	X	X	E	E	E	E	X	X	X
Methyl Hexanol	E		E	E			E	E	E
Methyl Methacrilate	X	X	X	X	E	E	X	X	X
Methyl Normal Amyl Ketone	X			E			C	E	X
Methyl Propyl Ether	X		X	X			X	X	C
Methyl Salycilate	X		C	C	E	E	X	X	X
Methyl Styrene	X		X	X			X	X	X
Methyl Sulfide	X		F	X			X	X	X
Methyl-Iso-Amyl-Ketone	X		G						X
Methyl-2-Butanone	X	X	C	C			X	X	X
Methyl-2-Hexanone	X		G						X
Methyl-2-Pentanol	G		E	E			G	G	E
Methyl-2-Pentanone	X		C	C			X	X	X
Methyl-4-Isopropyl Benzene	X		X	X			X	X	X
Methyl Amyl Acetate	X								X
Methyl Amyl Alcohol	G		E	E			G	G	E
Methylcyclohexane	X		X	X			X	X	C
Methylene Bromide	X		X	X	E	E	C	X	X
Methylene Chloride	X	X	X	C	F	F	X	X	X
Methylethyl Ketone	X	X	E	E			X	X	X
Methyl Hexyl Ketone	X		G	G	E		X	C	X
Methyl Isobutyl Carbinol	G		E	C			X	X	E
Methylisobutyl Ketone	X	X	C	C	E	E	X	X	X
Methylisopropyl Ketone	X	X	C	C			X	X	X
Methyllactonitrile	F		E	E			X	G	F
Methylpropyl Carbinol	E		E				E		E
Methylpropyl Ketone	X		G	G	E	E	X	X	X
Mineral Oil	X	X	C	X	E	E	E	C	C
Mineral Spirits	X	X	X	X			C	C	G
Mobile Hf A	X	X	X	X			E	C	X
Molten Sulfur	G		G	E			G	E	E
Mono-Chloroacetic Acid	C	X	G	G	E	E	X	C	G
Monobutyl Ether	X	X	C	C			G	C	C
Monochlorobenzene	X	X	X	X	F	F	X	X	X
Monochlorodifluoromethane	C	E	C	C	E	E	X	C	E
Monoethanol Amine	C	G	C	C			G	G	C
Monoethyl Amine	C	F	C	E			C	C	F
Morpholine	X		C	C			X	X	X
Motor Oil, 40W	X		X	X			E	C	C
Mtbe			G				X	X	
Muriatic Acid	C	X	C	F			C	C	C
N-Butanal	X	X	C	C	E	E	X	X	X
N-Butylamine	X	X	C	C			C	X	X

Chemical Resistance Chart (Continued)

CHEMICAL OR MATERIAL CONVEYED / COMPOUND	NR	SBR	IIR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
N-Butylbenzene	X		X	X			X	X	X
N-Butylbromide	X		X	X			X	X	X
N-Butylbutyrate	X	X	E	E			X	X	X
N-Butylcarbinol	E		E	E	E	E	E	E	E
N-Nonyl Alcohol	E		E	E			E	E	E
N-Octane	X	X	X	X	E	E	C	G	X
Naphtha	X	X	X	X	E	E	C	X	C
Naphthalene	X	X	X	X	E	E	X	X	X
Naphthenic Acid	X	X	X	X			C	X	X
Natural Gas	C	F	X	X	E	E	E	E	E
Neohexane	X		X	X			E	G	X
Neon Gas	E	E	E	E			E	E	E
Neu-Tri	X		X				X		X
Nickel Acetate	E	X	E	E			C	G	X
Nickel Chloride	E	E	E	E	E	E	E	C	E
Nickel Nitrate	E		E	E	E	E	E	E	E
Nickel Sulfate	C	G	E	E	E	E	E	E	E
Nitric Acid, Conc	X		X	X			X	X	X
Nitric Acid, Red Fuming	X	X	X	X	X	X	X	X	X
Nitric Acid, 10%	X	X	E	E	E	E	X	G	E
Nitric Acid, 13N	X					X	X		
Nitric Acid, 13N +5%	X					X	X		
Nitric Acid, 20%	X	X	G	E	E	E	X	X	E
Nitric Acid, 30%	X	X	F	F	G	G	X	X	E
Nitric Acid, 30% - 70%	X	X	F	X	F	F	X	X	C
Nitrilotriethanol	C	G	E	E	E	E	F	C	C
Nitrobenzene	X	X	F	C	E	E	X	X	X
Nitroethane	G	G	G	C			X	C	G
Nitrogen	E	E	E	E	E	E	E	E	E
Nitromethane	G	C	G	C			X	C	C
Nitrous Oxide Gas				E			E	G	
Nonanoic Acid	X		E		E	E	E		X
Nonanol	E		E	E			E	E	E
Octanoic Acid	F		F				F		G
Octanol	C	E	C	C			C	C	C
Octyl Acetate	C	X	E	G	E	E	C	C	E
Octyl Alcohol	C	E	C	C			C	C	C
Octyl Aldehyde	X		F		E	E	X		X
Octyl Amine	F		E	G			F	G	F
Octyl Carbinol	E		E	E			E	E	E
Octylene Glycol	E		E	E			E	E	E
Oil-Petroleum		X			G	G			
Oleic Acid	X	X	X	X	E	E	G	F	C
Oleum	X	X	X	X	X	X	X	X	X
Olive Oil	X	X	C	G			E	G	C
Ortho-Dichlorobenzene	X	X	X	X			X	X	X
Ortho-Dichlorobenzol	X	X	X	X			X	X	X
Orthoxylene	X	X	X	X			X	X	X
Oxalic Acid	C	G	E	E	E	E	G	G	E
Ozone	X	X	G	E	E	E	X	F	G
P-Cymene	X		X	X			X	X	X
Paint Thinner	X	X	X	X			X	X	X
Palmitic Acid	C	G	C	C	E	E	E	G	C
Papermakers Alum									
Para-Dichlorobenzene	X	X	X	X			X	X	X
Paraffin Wax	X		X	X			E	G	E
Paraldehyde	F		E	E			C	G	X
Paraxylene	X		X	X			X	X	X
Pelargonic Alcohol	E		E	E	E	E	E	E	E
Pentachloroethane	X		X				X	X	X
Pentamethylene	X		X	X			G	C	X
Pentane	X	X	X	X	E	E	E	E	C
Pentanol	E		E		E	E			E
Pentanone	X		G	G			X	X	X
Pentasol	X	G	E	G	E	E	C	G	E

CHEMICAL OR MATERIAL CONVEYED / COMPOUND	NR	SBR	IIR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Pentyl Acetate	C	X	X	C	E	E	X	X	X
Pentyl Alcohol	C	G	C	E	E	E	C	C	E
Pentyl Bromide	X		X	C			X	X	X
Pentyl Chloride	X	X	X	X	E	E	X	X	X
Pentyl Ether	X		X	X			C	X	F
Pentylamine	F		G	X			F	F	F
Perchloric Acid	C	X	C	G	E	E	X	E	C
Perchloroethylene	X	X	X	X	E	E	F	X	X
Perchloromethane	X		X	X			X	X	X
Petroleum Crude	X	X	X	X	E	E	G	G	E
Petroleum Ether	X	X	X	X			E	X	C
Petroleum Oils	X	X	X	X	E	E	X	G	G
Phenol	C	X	C	X	E	E	X	X	C
Phenolsulfonic Acid	C	X	G	E			C	C	C
Phenylamine	X		E	C	E	E	X	X	C
Phenylbromide	X		X						X
Phenylmethane	X		X	X	E	E	X	X	X
Phenylmethanol	X		E	C			X	C	C
Phosphate Esters	X	X	E	E			X	X	X
Phosphoric Acid 10%	E	E	E	E	E	E	E	E	E
Phosforic Acid 10% - 85%	G	G	E	E	E	E	G	G	E
Phosphorus Trichloride	X	X	E	E	E	E	X	X	X
Picric Acid, H20 Solution	C	G	G	E			E	E	E
Pine Oil	X	X	X	X	E	E	E	X	X
Pinene	X	X	X	X			C	C	X
Polyethylene Glycol E-400	E		E	E			C	G	E
Polyol Ester				X			G	X	
Polypropylene Glycol	E		E		E	E	E	E	E
Potassium Acetate	E	X	E	E			C	E	E
Potassium Bisulfate	E	G	E	E			E	E	E
Potassium Bisulfite	E	G	E	E			E	E	E
Potassium Carbonate	E	E	E	E	E	E	E	E	E
Potassium Chloride	E	E	E	E	E	E	E	E	G
Potassium Chromate	G	G	E	E			G	E	F
Potassium Cyanide	E	E	E	E	E	E	E	E	E
Potassium Dichromate	C	G	E	E	E	E	E	E	G
Potassium Hydrate	C	G	E		E	E			E
Potassium Hydroxyde	C	G	E	E	E	E	G	G	E
Potassium Nitrate	E	E	E	E	E	E	E	E	E
Potassium Permanganate, 5%	E	G	E	E	E	E	F	E	G
Potassium Silicate	E	E	E	E			E	E	E
Potassium Sulfate	C	G	E	E	E	E	E	E	E
Potassium Sulfide	G	G	E	E			C	E	E
Potassium Sulfite	C	G	E	E	E	E		E	C
Prestone Antifreeze	E	E	E	E			E	E	E
Producer Gas	X	X	X	X			E	G	C
Propane	X	X	X	X	E	E	E	E	C
Propanediol	E	E	E	E	E	E	E	G	E
Propanetriol	E	E	E	E	E	E	E	E	E
Propanol	E	E	E	E	E	E	E	E	E
Propanone	C	G	E	E	E	E	X	X	C
Propenol	E		E						E
Propanediamine	G		E			G			F
Propene Nitrile	G		X		E	E	X	X	
Propenyl Alcohol	E		E	E	E	E	E	E	E
Propenyl Anisole	X		X		E	E	X		X
Propionic Acid	E	X	E	E			C	C	G
Propionitrile	E		E	C			E	C	
Propyl Acetate	X	X	C	C	E	E	X	X	X
Propyl Alcohol	E	E	E	E	E	E	E	E	E
Propyl Aldehyde	F		G	G			X	X	X
Propyl Benzene	X		X					X	X
Propyl Chloride	X		F	F			X	F	X
Propyl Nitrate	X	X	C	C			X	X	X
Propylene	X	X	X	X			X	X	X

Chemical Resistance Chart (Continued)

CHEMICAL OR MATERIAL CONVEYED / COMPOUND	NR	SBR	IIR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Propylene Diamine	G		E				G		F
Propylene Glycol	E	E	E	E	E	E	E	E	E
Pydraul, 'E' Series	X	X	C	C			X	X	X
Pydraulic 'C'	X	X	X	X			X	X	X
Red Oil	X	X	X	F	E	E	E	F	C
Refrigerant 11	X	X	X		E	E			E
Refrigerant 12	X	E	X		E	E			E
Refrigerant 22	C	E	X		E	E			E
Resorcinol	E	G	E	G			C	A	G
Sae No. 10 Oil	X	X	X	X			E	C	X
Sal Ammoniac	E	E	E	E	E	E	E	E	E
Sea Water	E	E	E	E	E	E	E	E	E
Sewage	G	G	G	G	E	E	E	C	E
Silicate Esters	X	C	X	X			G	E	G
Silicate Of Soda	E	E	E	E			E	E	E
Silicone Grease	E	E	E	E	E	E	E	E	E
Silicone Oil	E	E	E	E	E	E	E	E	E
Silver Nitrate	E	G	E	E	E	E	C	E	E
Skydrol 500 Type 2	X	X	G	E			X	X	X
Skydrol 500B	X	X	G	E			X	X	X
Skydrol 500C	X	X	G	E			X	X	X
Skydrol 7000 Type 2	E	X	E	E			X	X	X
Soap Solutions	F	X	E	E	E	E	E	G	E
Soda Ash	E	X	E	E	E	E	E	E	E
Soda Lime	E		E	E			G	G	G
Soda Niter	G	G	E	E	E	E	E	G	E
Sodium Acetate	F	X	F	E	E	E	G	C	G
Sodium Aluminate	E	G	E	E			E	E	E
Sodium Bicarbonate	E	E	E	E	E	E	E	E	E
Sodium Bisulfate	E	G	E	E	E	E	E	E	E
Sodium Bisulfite	E	G	E	E	E	E	E	E	E
Sodium Borate	E	E	E	E	E	E	E	E	E
Sodium Carbonate	E	E	E	E	E	E	E	E	E
Sodium Chloride	E	E	E	E	E	E	E	E	E
Sodium Cyanide	E	E	E	E	E	E	E	E	E
Sodium Dichromate	X	G	E	E			E	F	G
Sodium Hydrate	E	G	E	E	E	E	X	G	C
Sodium Hydrochlorite	F	G	G	G			F	F	E
Sodium Hydroxide	E	G	E	E	E	E	X	G	C
Sodium Hypochlorite	X	F	C	E	E	E	C	C	G
Sodium Metaphosphate	E	E	G	E	E	E	E	E	C
Sodium Nitrate	G	G	E	E	E	E	C	G	E
Sodium Perborate	G	G	E	E			C	G	E
Sodium Peroxide	C	G	E	E	E	E	C	G	G
Sodium Phosphate	E	E	E	E	E	E	E	G	E
Sodium Silicate	E	E	E	E	E	E	E	E	E
Sodium Sulfate	C	G	E	E	E	E	E	E	E
Sodium Sulfide	G	G	E	E	E	E	E	E	E
Sodium Sulfite	G	G	E	E	E	E	E	E	E
Sodium Thiosulfate	G		E	E	E	E	C	E	E
Soybean Oil	X	X	G	C			E	E	G
Stannic Chloride	E	E	E	E	E	E	E	G	E
Stannic Sulfide	E		E	E			E	E	E
Stannous Chloride	E	E	E	G	E	E	E	E	E
Stannous Sulfide	E		E	E			E	E	E
Steam, Below 350 Deg F	C	X	G	E	X	X	X	X	C
Stearic Acid	C	G	C	G	E	E	G	G	G
Stoddard Solvent	X	X	X	X	E	E	E	G	X
Styrene	X	X	X	X	F	F	X	X	X
Sulfamic Acid	G		E	E			C	G	E
Sulfur	X	X	E	E	E	E	X	E	E
Sulfur Chloride	X	X	X	E			C	E	
Sulfur Dioxide	C	G	C	E		G	X	C	C
Sulfur Trioxide, Dry	C	X	G	E	X	X	X	X	X
Sulfuric Acid 60%	X	X	E	E	X	X	G	X	G

CHEMICAL OR MATERIAL CONVEYED / COMPOUND	NR	SBR	IIR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Sulfuric Acid, Conc.	X	X	X	X	F	F	X	X	X
Sulfuric Acid, Fuming	X	X	X	X	X	X	X	X	X
Sulfuric Acid, 25%	E	F	G	E	E	E	C	C	E
Sulfuric Acid, 25%-50%	G	F	G	E	E	E	C	X	G
Sulfuric Acid, 50%-96%	C	X	C	X	G	G	X	X	C
Sulfurous Acid, 10%	G	G	E	E	E	E	E	C	E
Sulfurous Acid, 10%-75%	G	G	E	E	E	E	F	C	E
T-Butyl Amine	X		C	C			C	X	X
Tall Oil	X	X	X	X			E	C	F
Tallow	X	X	X	E	E	E	E	G	F
Tannic Acid	E	G	E	E	E	E	E	E	E
Tar	X	X	X	X	X	F	X	X	
Tar Bituminous	X	X	X	X			G	C	X
Tartaric Acid	E	G	G	G	E	E	E	E	E
Tellone 2	C								
Tertiary Butyl Alcohol	C	G	C	C			C	C	C
Terpineol	X	X	C						X
Tertiary Butyl Amine	X		C	C			C	X	X
Tertiary Butyl Mercaptan	X	X	X	X			X	X	X
Tetrachlorobenzene	X		X	X			X	X	X
Tetrachloroethane	X	X	X	X	F	F	X	X	X
Tetrachloroethylene	X	X	X	X	F	F	C	X	X
Tetrachloromethane	X		X	X	E	E	X	X	X
Tetrachloronaphthalene	X		X	X	E	E	X	X	X
Tetraethylene Glycol	E		E	E			E	E	E
Tetraethylorthosilicate	X		E	E			E	E	
Tetrahydrofuran	X	X	C	X			X	X	X
Tin Chloride	E		E	E	E	E	E	C	C
Titanium Tetrachloride	X	X	X	X			C	C	X
Toluene	X	X	X	X	E	E	X	X	X
Toluidine	X		X	X	E	F	C	X	X
Toluol	X	X	X	X	E	E	X	X	X
Transformer Oil	X	X	X	X	E	E	C	C	C
Transmission 'A' Oil	X		X	X			E	C	C
Tri-Amine	C		E	E			G	C	C
Tributyl Phosphate	C	X	G	G			F		X
Tributylamine	G		E				G		F
Trichloroacetic Acid	C	X	C	C			C	C	X
Trichlorobenzene	X	X	X	X	F	F	C	X	X
Trichloroethane	X	X	X	X			X	X	X
Trichloroethylene	X	X	X	X	F	F	X	X	X
Trichloromethane	X	X	X	X	F	F	X	X	X
Trichlorotoluene	X			E			X	X	X
Tricresyl Phosphate	X	X	E	E			X	X	X
Triethanolamine	C	G	E	E	E	E	C	C	C
Triethylamine	G	X	G	E			E	G	E
Triethylene Glycol	E		E	E	E	E	C	E	E
Trihydroxybenzoic Acid	E		C	C			C	C	G
Trimethyl Pentane	X	X	X	X			E	G	C
Trimethylamine	E		E	C			C	E	E
Trisodium Phosphate	E	E	E	E	E	E	E	E	E
Tritoyl Phosphate	X	X	E	E			X	C	C
Tung Oil	X	X	C	X	E	E	E	C	C
Tung Oil	X	X	C	X	E	E	E	C	C
Turpentine	X	X	X	X	E	E	E	X	X
Unsymetrical Dimethyl Hydrazine	E	X	E	E			C	C	E
Undecyl Alcohol	E		E	E			E	E	E
Urea	E		E	E	E	E	G	G	E
Uric Acid	E		E	E			C	E	E
Varnish	X	X	X	X	E	E	G	X	X
Vegetable Oils	X	X	C	F	E	E	E	C	G
Versilube F44	E	E	E	E			E	E	E
Versilube F55	E	E	E	X			E	E	E
Vinegar	G	G	E	E	E	E	G	G	E
Vinegar Acid	G		E		E	E			E

Chemical Resistance Chart (Continued)

COMPOUND / CHEMICAL OR MATERIAL CONVEYED	NR	SBR	IIR	EPDM	XLPE	UHMWPE	NBR	CR	CSM
Vinyl Acetate	X	X	E	G	E	E	C	C	F
Vinyl Benzene	X	X	X	X	F	F	C	X	X
Vinyl Chloride	X	X	C	E	E	E	X	X	C
Vinyl Cyanide	G	F	X	X	E	E	X	X	G
Vinyl Ether	X		X				G		G
Vinyl Toluene	X		X	X			X	X	X
Vinyl Trichloride	X		X	X			X	X	X
Vm & Naphtha	X	X	X	X			G	F	X
Water	E	C	E	E	E	E	E	G	E
Water, Boiling	E		E	E			G	G	E
Water, Soda					E	E			
Wemco C	X	X	X	X			E	C	X
Whiskey	E	E	E	E	E	E	E	E	E
White Oil	X	X	X	X	E	E	E	G	C
White Pine Oil	X	X	X	X			C	X	X
Wines	E	E	E	E	E	E	E	E	E
Wood Alcohol	E	E	C	E	E	E	C	E	E
Wood Oil	X	X	C	X	E	E	E	C	C
Xenon	E	E	E	E			E	E	E
Xylene, Xylon	X	X	X	X	F	F	X	X	X
Xylidine	X	X	G	G			C	X	X
Zeolites	E	E	E	E			E	E	E
Zinc Acetate	E	X	E	E			G	C	
Zinc Carbonate	E		E	E			E	E	E
Zinc Chloride	E	E	E	E	E	E	E	E	E
Zinc Chromate	E		E	E			C	E	G
Zinc Sulfate	E	G	E	E	E	E	E	E	E
O-Aminotoluene	X		C	C			X	X	X
1 Undecanol	E	E	E	E	E	G	E	E	E
1-Amino-2-Propanol	G		E	E			C	E	F
1-Aminobutane	X	X	C	C			C	X	X
1-Aminopentane	F		G	X			F	C	F
1-Bromo-2-Methyl Propane	X		X	X			X	X	X
1-Bromo-3-Methyl Butane	X		X	X			X	X	X
1-Bromobutane	X		X	X			X	X	X
1-Chloro-2-Methyl Propane	X		X	X			X	X	X
1-Chloro-3-Methyl Butane	X		X	X			X	X	X
1-Decanol	X		X	X	E	E	E	X	C
1-Hendecanol	E		E	E			E	E	E
1,4-Dioxane	X		C	C	E		X	X	X
2(2Aminoethylamino) Ethanol	G		E						G
2(2Ethoxyethoxy) Ethanol	C	G	C	C			C	C	C
2(2Ethoxyethoxy) Ethyl Acetate	X	X	G	X			X	X	G
2-Aminoethanol	C	F	C	E			C	C	C
2-Chloro-1-Hydroxy-Benzene	X		X	X			X	X	X
2-Chlorophenol	X	X	X	X			X	X	X
2-Chloropropane	X	X	X	X			X	X	X
2-Ethoxyethanol	X	X	C	C	E	E	C	X	X
2-Ethoxyethyl Acetate	C		C	G	E	E	X	X	X
2-Ethyl	X		G				X		X
2-Ethyl-1-Hexanol	G	G	C	C	E	E	C	C	C
2-Ethylhexanoic Acid	F		F				F		G
2-Ethylhexyl Acetate	X		E	C	C		X		G
2-Octanone	X		G	G			X	C	
3-Bromopropene	X		X	X			X	X	X
3-Chloropropene	X	E	C	X	E	G	C	X	X
3-Coal Oil	X		X	X			E	G	F
4-Hydroxy-4-Methyl-2-Pentanone	X	X	E	E	E	E	X	F	C

Quality Accreditation

As a manufacturer of quality industrial rubber hoses, WELLCALL ensures that our products are accredited by independent third party organizations.
Some of the third party accreditations that WELLCALL manufactured product have achieved included:-


SGS

Wellcall Hose (M) Sdn. Bhd.

ISO 9001:2008

Manufacturing and Development of Industrial Rubber Hose

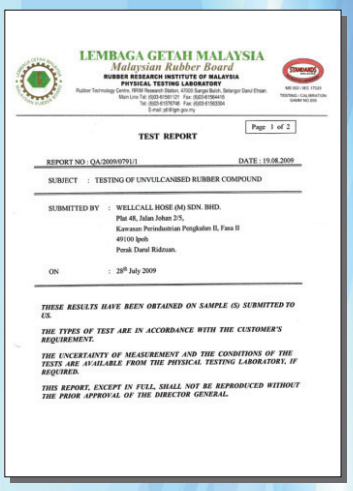

Lloyd's Register

Type Approval Certificate

PRODUCER	WAM SN New Zealand Limited P O Box 22012 New Lynn 48-50 Panko Road, Avondale, Auckland, New Zealand
PLACE OF PRODUCTION	Wellcall Hose SDN. BHD. Plot 48 Jalan Johan, 2/5 Kawasan, Perindustrian, Pengkalan, II Fasa II, 31500 Ipoh, Perak, Darul, Malaysia
DESCRIPTION	WAM Air/Water Hose for Underground Coal Mines (PBAS) Inner Tube: Anti-static synthetic rubber compound Reinforcement: High strength polyester braided cords Cover: Anti-static fire resistant synthetic rubber blend
TYPE	AS 2660:1995 Class A (Extra Heavy)
APPLICATION	Fire resistant anti-static flexible hose for conveying air and water in underground coal mines
STANDARD	AS 2660: 1995, Class A
RATINGS	Hose diameters (mm): 6 to 152 Pressure rating (MPa): 1.75 Temperature rating (°C): N/A
OTHER CONDITIONS	This hose is supplied without end fittings. End fittings are to be fitted and tested in accordance with AS 2660 to ensure that the assembly is compliant with AS 2660.
Certificate No.	11/10098
Issue Date	25 November 2011
Expiry Date	24 November 2016
Sheet	1 of 2

N. Nagamura
Yokohama Design Support Office
Lloyd's Register

Lloyd's Register, registered office:
71 Fenchurch Street, London EC3M 4BS


LEMBAGA GETAH MALAYSIA
Malaysian Rubber Board
RUBBER RESEARCH INSTITUTE OF MALAYSIA
PHYSICAL TESTING LABORATORY

Page 1 of 2

TEST REPORT

REPORT NO : QA/2009/0791/1 DATE : 19.08.2009

SUBJECT : TESTING OF UNVULCANISED RUBBER COMPOUND

SUBMITTED BY : WELLCALL HOSE (M) SDN. BHD.
Plat 48, Jalan Johan 2/5,
Kawasan Perindustrian Pengkalan II, Fasa II
401100 Ipoh
Perak Darul Ridzuan.

ON : 28th July 2009

THESE RESULTS HAVE BEEN OBTAINED ON SAMPLE (S) SUBMITTED TO US.

THE TYPES OF TEST ARE IN ACCORDANCE WITH THE CUSTOMER'S REQUIREMENT.

THE UNCERTAINTY OF MEASUREMENT AND THE CONDITIONS OF THE TESTS ARE AVAILABLE FROM THE PHYSICAL TESTING LABORATORY, IF REQUIRED.

THIS REPORT, EXCEPT IN FULL, SHALL NOT BE REPRODUCED WITHOUT THE PRIOR APPROVAL OF THE DIRECTOR GENERAL.

FlindersCook (Technical Services) Limited

Lloyd's Register

SIRIM QAS INTERNATIONAL

LEMBAGA GETAH MALAYSIA • MALAYSIAN RUBBER BOARD • LGM

Research Laboratory and Facilities

- Mooney viscometer
- Rheometer
- Tensile testing machine
- Abrasion tester (DIN 53516)
- Ozone chamber
- Pressure testing equipment
- Air aging oven
- Specific gravity meter
- Lab two roll mill
- Hardness meter

Unit of measurement

Names of multiples and fractions of units

Multiples			Fractions		
10^{1}	da	deka	10^{-1}	d	deci
10^{2}	h	hecto	10^{-2}	c	centi
10^{3}	k	kilo	10^{-3}	m	milli
10^{6}	M	mega	10^{-6}	µ	micro
10^{9}	G	giga	10^{-9}	n	nano
10^{12}	T	tera	10^{-12}	p	pico
			10^{-15}	f	femto
			10^{-18}	a	atto

Conversion factors for units of measurement

Force, weight	1 kg	=	9.807 N
	1 lb	=	16 oz
		=	0.4536 kg
		=	4.448 N
	1 oz	=	28.35 g
Mechanical stress, pressure	1 kg / cm^2	=	1 at
		=	0.09807 Mpa
		=	14.22 lbs/sq.in
		=	735.6 torr
	1 Mpa	=	10 bar
	1 bar	=	14.5036 psi
Length	1 inch	=	25.4 mm
	1 ft	=	12 inch
	1 yard	=	3 ft
		=	91.44 cm
Area	1 square inch	=	6.452 cm^2
	1 acre	=	4047 m^2
Volume	1 pint (USA)	=	0.4732 l
	1 pint (British)	=	0.5683 l
	1 gallon (USA)	=	3.785 l
	1 gallon (British)	=	4.546 l
Temperature	°F	=	9/5 °C + 32