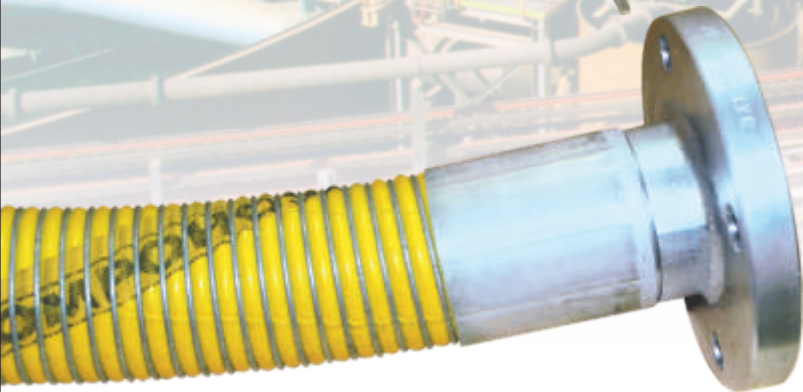
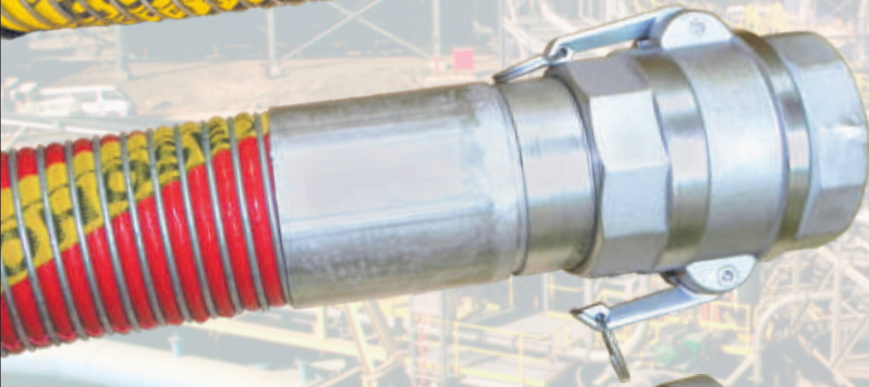
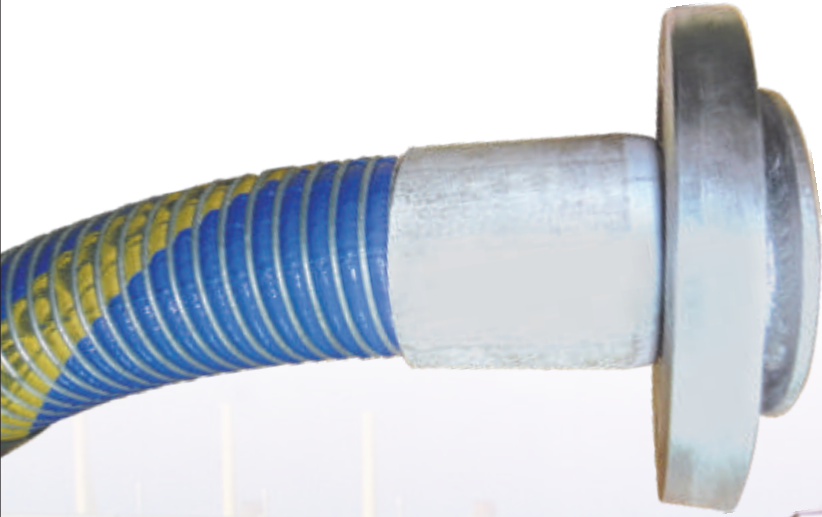


**COMPOHOSE**<sup>TM</sup>

**COMPOSITE HOSES**



**COMPOHOSE**

# COMPANY INFORMATION

- **SHARDA INDUSTRIAL CORPORATION (SIC)** is specialized in the Manufacturing and Marketing of Composite hose and hose assemblies.
- The company is located at Vasai close to JNPT port, Mumbai india.
- **SHARDA INDUSTRIAL CORPORATION (SIC)** offers the most extensive range of composite hose for the Industrial usage - **COMPOHOSE™** Brand.
- The complete range of hoses and fittings are developed, manufactured and tested within the company under stage wise quality control system in accordance to BS EN-13765.

## PRODUCT INFORMATION HOSES CONSTRUCTION

The hoses are constructed from Polypropylene, polyamide & polyester films and fabrics, depending on the application. Outer cover of polyester fabrics duly PVC coated resists to dragging, wear and abrasion also resistance to weather and ozone. For more demanding application PTFE liners are also available to handle more corrosive chemicals.

### INTERNAL WIRES

Inner wire provides support and are crust resistance.  
The inner wire available are:

- a) G : Galvanized steel
- b) P : Polypropylene coated steel wire
- c) S : Stainless steel 304 or 316

### CARCASS

Inner fabric or film provide resistance to oil, hydrocarbon 100% aromatic content and optimum chemical compatibility for maximum hose service life. Reinforced fabrics & films are provided to withstand the required pressure and protect barrier film layers.

P : Polypropylene Fabric

T : PTFE Layer

### EXTERNAL WIRES

Outer wire provides overall hoop strength and electrical continuity .  
The outer wires available are :

- a) G : Galvanized steel
- b) S : Stainless steel 304 or 316
- c) A : Aluminum wire

### ELECTRICAL CONTINUITY

Typically, most hose assemblies have full end to end electrical continuity which is achieved by bonding inner and outer wires to the end fittings.

### SAFETY

All composite hose assemblies are pressure tested at 1.5 times their rated working pressure before shipment. Test certificate shall be provide with all hose assemblies as per standard.

### STANDARDS

**COMPOHOSE™** composite hoses comply with International Standard BS EN 13765.

### REAL ADVANTAGES FOR YOUR APPLICATIONS

The Composite hose are seepage- free and leak- proof; that doesn't kink or collapse also has great hoop strength, exceptional service life, and offers superior safety and performance.

### COMPARED TO RUBBER HOSES AND METAL HOSES.

**COMPOHOSE™** composite hoses are extremely light in weight and highly flexible for easier handling. Their multi- layer construction prevents catastrophic failure. Flexibility is retained at low and even cryogenic temperatures. Hoses are protected from corrosion and attack by other liquids, UV and Ozone by their tough PVC impregnated fabric cover.

# MULTIOIL SUCTION & DISCHARGE COMPOSITE HOSE

## COMPOHOSE™

### STANDARD DUTY-GPG

Standard Duty Oil Suction and Discharge hoses are designed for handling wide range of fuel, lubricant where light weight and high flexibility is required.

#### APPLICATION

**COMPOHOSE™** hoses and hose assemblies are recommended for Rail Tank Wagons, Tank Truck Loading and Unloading, Storage tanks transfers and other standard duty applications.

#### COMPLIANCE

Standard Duty Multi oil suction and discharge composite hoses are manufactured in accordance to EN 13765/ 2010 Type 2.

#### PRODUCT HANDLE

Gasoline, high speed diesel, paraffin, kerosene, lubricating oils and 100% aromatics as well as black oils and heavy lubricants and solvents .



#### FEATURES

- 1) Complete product compatibility for safe handling of all types of oil based 100% aromatic content and other non aggressive chemicals.
- 2) Light Weight & Highly Flexible makes it easy to handle in loading and unloading.
- 3) Tough PVC outer cover resists to dragging, wear, abrasion, UV and ozone resistance having maximum durability and safety.
- 4) Double end to end electrical continuity prevents static electricity build up and internal arcing.
- 5) Suitable for 0.9 Bar Vacuum rating.

#### CONSTRUCTIONS

<b>INNER WIRE</b>	:	High tensile strength galvanized steel
<b>OUTER WIRE</b>	:	High tensile strength galvanized steel
<b>CARCASS</b>	:	Multiple layers of polypropylene fabric, film and polyester barrier layers
<b>COVER</b>	:	Abrasion resistant PVC impregnated fabric
<b>TEMPERATURE RANGE</b>	:	-30°C to +80°C
<b>FOR CHEMICAL HOSE</b>	:	Please refer chemical resistance compatibility chart
<b>END FITTING</b>	:	As per client requirement which will be externally crimped or swaged

SIZE		MAX W.P		MIN. BURST		BEND RADIUS		WEIGHT KG/MT		MAX. LENGTH
MM	INCH	BAR	PSI	BAR	PSI	MM	INCH	GG	AG	MT
38	1.5"	10	150	40	600	85	3.5	1.4	0.9	20
50	2"	10	150	40	600	125	5	1.7	1.3	20
65	2.5"	10	150	40	600	150	6	2.4	1.2	20
75	3"	10	150	40	600	175	7	2.8	1.5	20
100	4"	10	150	40	600	250	10	3.7	2	20

#### SAFETY

- **COMPOHOSE™** assemblies are tested at 1.5 times rated W.P for safety & reliability in accordance with BSEN 13765.
- Manufacturer test certificate will be provided with the supply.
- Burst pressure indicated is at ambient temperature.
- Electrically continuity is achieved by the two wire bonded to the end fitting, this helps dissipate accumulated charge and to avoid static flash.

# MULTICHEM CHEMICAL COMPOSITE HOSE

## COMPOHOSE™



### STANDARD DUTY-PPG

Standard Duty Multichem Chemical hoses are designed for handling wide range of inorganic & Organic liquids, Chemicals & petroleum Products.

#### APPLICATION

The **COMPOHOSE™** assembly are recommended for Tank to process Chemical Handling, Storage tank transfer & Rail Wagon loading and unloading of Chemicals. The spiral wound Polypropylene coated galvanized iron inner wire and Galvanized iron outer wire for providing strength & the flexibility to maintain hose integrity under stress and strain.

#### COMPLIANCE

Standard Duty Multichem Chemical composite hoses are manufactured in accordance to BS EN13765/ 2010 Type 2.



#### PRODUCT HANDLE

Highly corrosive acid and alkalis, aldehydes, amines, aromatic fuels, chlorinated hydrocarbons, alcohols, ketones, lacquers and petroleum products. Not suitable for service for many bromide, chloride or fluoride compounds. Refer to the chemical compatibility chart for specific recommendations.

#### FEATURES

- 1) Polypropylene liner with heavy duty polypropylene carcass for maximum chemical resistance.
- 2) Tough PVC outer cover resists to dragging, wear, abrasion, UV and ozone resistance having maximum durability and safety.
- 3) Double end to end electrical continuity prevents static electricity build up and internal arcing.
- 4) Choice of Galvanized, Stainless Steel or Polypropylene coated outer wire can be provided.
- 5) Suitable for 0.9 Bar Vacuum rating.

#### CONSTRUCTIONS

<b>INNER WIRE</b>	:	Polypropylene coated galvanized steel (Stainless Steel 304 / 316 available)
<b>OUTER WIRE</b>	:	High tensile strength galvanized steel
<b>CARCASS</b>	:	Multiple layers of polypropylene fabric, film and polyester barrier layers
<b>COVER</b>	:	Abrasion resistant PVC impregnated fabric
<b>TEMPERATURE RANGE</b>	:	-30°C to +80°C
<b>FOR CHEMICAL HOSE</b>	:	Please refer chemical resistance compatibility chart
<b>END FITTING</b>	:	As per client requirement which will be externally crimped or swaged

SIZE		MAX W.P		MIN. BURST		BEND RADIUS		WEIGHT	MAX. LENGTH
MM	INCH	BAR	PSI	BAR	PSI	MM	INCH	KG/MT	MT
38	1.5"	10	150	40	600	85	3.5	1.6	20
50	2"	10	150	40	600	125	5	1.9	20
65	2.5"	10	150	40	600	150	6	2.0	20
75	3"	10	150	40	600	175	7	3.2	20
100	4"	10	150	40	600	250	10	4.1	20

#### SAFETY

- **COMPOHOSE™** assemblies are tested at 1.5 times rated W.P for safety & reliability in accordance with EN 13765.
- Manufacturer test certificate will be provided with the supply.
- Burst pressure indicated is at ambient temperature.
- Electrically continuity is achieved by the two wire bonded to the end fitting , this helps dissipate accumulated charge and to avoid static flash.

# MULTICHEM PTFE CHEMICAL COMPOSITE HOSE

## COMPOHOSE™

### STANDARD DUTY-STG

Standard Duty Multichem PTFE Chemical hoses are designed for handling wide range of aggressive chemicals, solvents, and acids including chloride and fluoride compounds. PTFE inner layers and other special barrier layers assure maximum product life in application and clean transfers are critical. Electrical continuity is achieved by two wires bonded to end fittings, this helps dissipate accumulated charges to avoid static flash.

#### APPLICATION

The **COMPOHOSE™** assembly are recommended & designed for in plant transfers, Tank to process Chemical Handling, Storage tank transfer & Rail Wagon loading and unloading of many Aggressive Chemicals, solvents, and acids including chloride and fluoride compounds. The spiral wound Stainless Steel 304 / 316 inner wire and Galvanized iron outer wire for providing strength & the flexibility to maintain hose integrity under stress and strain.



#### COMPLIANCE

Standard Duty Multichem PTFE Chemical composite hoses are manufactured in accordance to EN13765/2010 Type 2.

#### PRODUCT HANDLE

Very Aggressive or corrosive acids & alkalis, MTBE, Chlorinated hydrocarbons, aromatic fuels, alcohols where PTFE lining is mandatory.

#### FEATURES

- 1) Complete product compatibility for safe handling of all types very aggressive Chemicals, solvents, and acids including chloride and fluoride compounds.
- 2) PTFE Liner with polypropylene and polyester barrier layers for maximum chemical resistance.
- 3) Tough PVC outer cover resists to dragging, wear, abrasion, UV and ozone resistance having maximum durability and safety.
- 4) Double end to end electrical continuity prevents static electricity build up and internal arcing.
- 5) Suitable for 0.9 Bar Vacuum rating.

#### CONSTRUCTIONS

<b>INNER WIRE</b>	: Stainless steel 304 / 316 or PVDF Coated
<b>OUTER WIRE</b>	: High tensile strength galvanized steel
<b>CARCASS</b>	: Multiple layers of PTFE with polypropylene fabric, film and polyester barrier layers
<b>COVER</b>	: Abrasion resistant PVC impregnated fabric
<b>TEMPERATURE RANGE</b>	: -30°C to +100°C
<b>FOR CHEMICAL HOSE</b>	: Please refer chemical resistance compatibility chart
<b>END FITTING</b>	: As per client requirement which will be externally crimped or swaged

SIZE		MAX W.P		MIN. BURST		BEND RADIUS		WEIGHT		MAX. LENGTH
MM	INCH	BAR	PSI	BAR	PSI	MM	INCH	KG/MT	LB/FT	MT
25	1"	10	150	40	600	90	3.6	1.2	0.8	20
38	1.5"	10	150	40	600	120	5	1.4	0.9	20
50	2"	10	150	40	600	150	6	1.7	1.1	20
65	2.5"	10	150	40	600	180	7.2	2.4	1.6	20
75	3"	10	150	40	600	250	10	2.8	1.9	20
100	4"	10	150	40	600	350	14	3.7	2.5	20

#### SAFETY

- **COMPOHOSE™** assemblies are tested at 1.5 times rated W.P for safety & reliability in accordance with EN 13765.
- Manufacturer test certificate will be provided with the supply.
- Burst pressure indicated is at ambient temperature.
- Electrically continuity is achieved by the two wire bonded to the end fitting, this helps dissipate accumulated charge and to avoid static flash.

# MULTIOIL DOCK OIL SUCTION & DELIVERY COMPOSITE HOSE

## COMPOHOSE™



### HEAVY DUTY-GPG

Heavy duty oil marine hose are designed for handling fuel, lubricant and 100% aromatics at required discharge pressure or suction at port installation.

#### APPLICATION

The **COMPOHOSE™** assembly are recommended for loading and unloading barges, ocean tanker and bunkering services also recommended for the other dock side operation at port installation. The spiral wound high tensile galvanized iron inner wire and outer wire for providing strength & the flexibility to maintain hose integrity under stress and strain of the ship and barge movement.

#### COMPLIANCE

Heavy duty marine hose are manufactured and tested in accordance to EN 13765 type 3.

#### PRODUCT HANDLE

Gasoline, Diesel fuel, Paraffin, Kerosene, Lubricating Oils and 100% aromatics as well as black oils and heavy lubricants and solvents.

#### FEATURES

- 1) Complete product compatibility for safe handling of all types of oil based 100% aromatic.
- 2) Tough PVC outer cover resists to dragging, wear, abrasion, UV and ozone resistance having maximum durability and safety.
- 3) Double end to end electrical continuity prevents static electricity build up and internal arcing.
- 4) Suitable for 0.9 Bar Vacuum rating.

#### CONSTRUCTIONS

<b>INNER WIRE</b>	:	High tensile strength galvanized steel
<b>OUTER WIRE</b>	:	High tensile strength galvanized steel
<b>CARCASS</b>	:	Multiple layers of polypropylene fabric, film and polyester barrier layers
<b>COVER</b>	:	Abrasion resistant PVC impregnated fabric
<b>TEMPERATURE RANGE</b>	:	-30°C to +80°C
<b>END FITTING</b>	:	As per client requirement which will be externally crimped or swaged

SIZE		MAX W.P		MIN. BURST		BEND RADIUS		WEIGHT		MAX. LENGTH
MM	INCH	BAR	PSI	BAR	PSI	MM	INCH	KG/MT	LB/FT	MT
100	4"	15	200	60	850	400	16	5.2	3.5	20
150	6"	15	200	60	850	575	23	11.5	7.7	20
200	8"	15	200	60	850	800	32	18.0	12.0	20
250	10"	15	200	60	850	1000	40	25.0	16.9	12

#### SAFETY

- **COMPOHOSE™** assemblies are tested at 1.5 times rated W.P for safety & reliability in accordance with EN 13765.
- Manufacturer test certificate will be provided with the supply.
- Burst pressure indicated is at ambient temperature.
- Electrically continuity is achieved by the two wire bonded to the end fitting, this helps dissipate accumulated charge and to avoid static flash.

# MULTICHEM DOCK CHEMICAL COMPOSITE HOSE

## COMPOHOSE™



### HEAVY DUTY-PPG

Heavy duty multichem dock chemical composite hose are ideal for marine services handling wide range of Inorganic & Organic liquids, Chemicals & cargo at port installation.

#### APPLICATION

The **COMPOHOSE™** assembly are recommended for loading and unloading barges, ocean tanker and bunkering services also recommended for the other dock side operation at port installation. The spiral wound high tensile polypropylene coated galvanized iron inner wire and Galvanized Iron outer wire for providing strength & flexibility to maintain hose integrity under stress and strain of the ship and barge movement.

#### COMPLIANCE

Heavy Duty Multichem Dock Chemical composite hose are manufactured and tested EN13765 Type 3.

#### PRODUCT HANDLE

Highly corrosive acid and alkalis, aldehydes, amines, aromatic fuels, chlorinated hydrocarbons, alcohols, ketones, lacquers and petroleum products. Not suitable for service for many bromide, chloride or fluoride compounds. Refer to the chemical compatibility chart for specific recommendations.

#### FEATURES

- 1) Complete product compatibility for safe handling of all types of Inorganic / organic liquids & other aggressive chemicals in dockside operations.
- 2) Tough PVC outer cover resists to dragging, wear, abrasion, UV and ozone resistance having maximum durability and safety.
- 3) Choice of High tensile strength galvanized steel / Stainless Steel 304 / 316 outer wire for maximum durability depending on external environment.
- 4) Double end to end electrical continuity prevents static electricity build up and internal arcing.
- 5) Suitable for 0.9 Bar Vacuum rating.

#### CONSTRUCTIONS

<b>INNER WIRE</b>	: Polypropylene coated galvanized steel or Stainless Steel 304 / 316
<b>OUTER WIRE</b>	: High tensile strength galvanized steel or Stainless Steel 304 / 316
<b>CARCASS</b>	: Multiple layers of polypropylene fabric, film and polyester barrier layers
<b>COVER</b>	: Abrasion resistant PVC impregnated fabric
<b>TEMPERATURE RANGE</b>	: -30°C to +80°C
<b>FOR CHEMICAL HOSE</b>	: please refer chemical resistance compatibility chart
<b>END FITTING</b>	: As per client requirement which will be externally crimped or swaged

SIZE		MAX W.P		MIN. BURST		BEND RADIUS		WEIGHT		MAX. LENGTH
MM	INCH	BAR	PSI	BAR	PSI	MM	INCH	KG/MT	LB/FT	MT
100	4"	15	200	60	850	400	16	5.2	3.5	20
150	6"	15	200	60	850	575	23	11.5	7.7	20
200	8"	15	200	60	850	800	32	18.0	12.0	20
250	10"	15	200	60	850	1000	40	25.0	16.9	12

#### SAFETY

- **COMPOHOSE™** assemblies are tested at 1.5 times rated W.P for safety & reliability in accordance with EN 13765.
- Manufacturer test certificate will be provided with the supply.
- Burst pressure indicated is at ambient temperature.
- Electrically continuity is achieved by the two wire bonded to the end fitting, this helps dissipate accumulated charge and to avoid static flash.

# MULTICHEM PTFE DOCK CHEMICAL COMPOSITE HOSE

## COMPOHOSE™

### HEAVY DUTY-STG

Heavy duty Multichem PTFE dock chemical composite hose are ideal for marine services handling wide range of very aggressive Chemicals where additional chemical resistance is needed with PTFE inner layers.

#### APPLICATION

The **COMPOHOSE™** assembly are recommended for typical loading and unloading barges, ocean tanker and bunkering services also recommended for the other dock side operation at port installation. The spiral wound high tensile Stainless Steel 316 inner wire and Galvanized Iron or Stainless Steel outer wire for providing strength & flexibility to maintain hose integrity under stress and strain of the ship and barge movement.

#### COMPLIANCE

Heavy Duty Multichem PTFE Dock Chemical composite hose are manufactured and tested EN13765 Type 3.



#### PRODUCT HANDLE

Very Aggressive or corrosive acids & alkalis, MTBE, Chlorinated hydrocarbons, aromatic fuels, alcohols where PTFE lining is mandatory. Refer to the chemical compatibility chart for specific recommendations.

#### FEATURES

- 1) Complete product compatibility for safe handling of all types very aggressive Chemicals, solvents, and acids including chloride and fluoride compounds.
- 2) PTFE Liner with polypropylene and polyester barrier layers for maximum chemical resistance.
- 3) Tough PVC outer cover resists dragging, wear, abrasion, UV and ozone resistance having maximum durability and safety.
- 4) Choice of Galvanized Iron / Stainless Steel 304 / 316 outer wire for maximum durability depending on external environment.
- 5) Double end to end electrical continuity prevents static electricity build up and internal arcing.
- 6) Suitable for 0.9 Bar Vacuum rating.

#### CONSTRUCTIONS

<b>INNER WIRE</b>	: Stainless steel 340/316 or PVDF Coated
<b>OUTER WIRE</b>	: High tensile strength galvanized steel or stainless steel 340/316
<b>CARCASS</b>	: Multiple layers of PTFE, polypropylene fabric, film and polyester barrier layers
<b>COVER</b>	: Abrasion resistant PVC impregnated fabric
<b>TEMPERATURE RANGE FOR CHEMICAL HOSE</b>	: -30°C to +100°C
<b>END FITTING</b>	: Please refer chemical resistance compatibility chart
	: As per client requirement which will be externally crimped or swaged

SIZE		MAX W.P		MIN. BURST		BEND RADIUS		WEIGHT		MAX. LENGTH
MM	INCH	BAR	PSI	BAR	PSI	MM	INCH	KG/MT	LB/FT	MT
100	4"	15	200	60	850	400	16	5.2	3.5	20
150	6"	15	200	60	850	575	23	11.5	7.7	20
200	8"	15	200	60	850	800	32	18.0	12.0	20
250	10"	15	200	60	850	1000	40	25.0	16.9	12

#### SAFETY

- **COMPOHOSE™** assemblies are tested at 1.5 times rated W.P for safety & reliability in accordance with EN 13765 type 3.
- Manufacturer test certificate will be provided with the supply.
- Burst pressure indicated is at ambient temperature.
- Electrically continuity is achieved by the two wire bonded to the end fitting , this helps dissipate accumulated charge and to avoid static flash.



# AVIATION FUEL COMPOSITE HOSE

## COMPOHOSE™

### STANDARD DUTY - SPG

Standard Duty Aviation Fuel Suction and Discharge composite hoses are designed for handling Aviation fuel , lubricant where light weight and high flexibility is required.

#### APPLICATION

**COMPOHOSE™** hoses and hose assemblies are recommended for Rail Tank Wagons, Tank Truck Loading and Unloading, Storage tanks transfers and other standard duty applications.

#### COMPLIANCE

Standard Duty Aviation fuel suction and discharge composite hoses are manufactured in accordance to EN13765/2010 Type 2.

#### PRODUCT HANDLE

Specially for Aviation Fuel , Superior Kerosene & also can be used for gasoline, diesel fuel, paraffin , kerosene, lubricating oils and 100% aromatics as well as black oils and heavy lubricants and solvents not recommended for corrosive and aggressive chemicals.



#### FEATURES

- 1) Complete product compatibility for safe handling of Aviation Fuel & Superior Kerosene.
- 2) Light Weight & Highly Flexible makes it easy to handle in loading and delivery.
- 3) Tough PVC outer cover resists to dragging, wear, abrasion, UV and ozone resistance having maximum durability and safety.
- 4) Double end to end electrical continuity prevents static electricity build up and internal arcing.
- 5) Suitable for 0.9 Bar Vacuum rating.

#### CONSTRUCTIONS

<b>INNER WIRE</b>	: Stainless steel 304 / 316
<b>OUTER WIRE</b>	: High tensile strength galvanized steel
<b>CARCASS</b>	: Multiple layers of polypropylene fabric, film and polyester barrier layers
<b>COVER</b>	: Abrasion resistant PVC impregnated fabric
<b>TEMPERATURE RANGE</b>	: -30°C to +80°C
<b>END FITTING</b>	: As per client requirement which will be externally crimped or swaged

SIZE		MAX W.P		MIN. BURST		BEND RADIUS		WEIGHT		MAX. LENGTH
MM	INCH	BAR	PSI	BAR	PSI	MM	INCH	KG/MT	LB/FT	MT
38	1.5"	10	150	40	600	85	3.5	1.4	0.9	20
50	2"	10	150	40	600	125	5	1.7	1.1	20
65	2.5"	10	150	40	600	150	6	2.4	1.6	20
75	3"	10	150	40	600	175	7	2.8	1.9	20
100	4"	10	150	40	600	250	10	3.7	2.5	20

#### SAFETY

- **COMPOHOSE™** assemblies are tested at 1.5 times rated W.P for safety & reliability in accordance with EN 13765.
- Manufacturer test certificate will be provided with the supply.
- Burst pressure indicated is at ambient temperature.
- Electrically continuity is achieved by the two wire bonded to the end fitting, this helps dissipate accumulated charge and to avoid static flash.

# LIQUID PETROLEUM GAS / LIQUID NATURAL GAS SERVICE CRYOGENIC COMPOSITE HOSE

## COMPOHOSE™

### HEAVY DUTY

Heavy duty Gas hose are designed specially for transfer of fully refrigerated conveyants like LPG, LNG and there related conveyants in Gas group 4,5,7.

#### APPLICATION

The **COMPOHOSE™** assembly are recommended for fully refrigerated liquefied petroleum gasses and related conveyants in Gas group 4,5,7. The spiral wound Stainless Steel 316 inner wire and Stainless Steel 316 outer wire for providing strength & the flexibility to maintain hose integrity under stress and strain.

#### COMPLIANCE

Gas hose are manufactured and tested in accordance EN 13766 Class A Type 1.

#### PRODUCT HANDLE

Gas hoses are suitable for transfer Ammonia, LPG, LNG, CNG, Liquid Nitrogen, Propane, Butadiene, Butylene, Dimethylamide, Ethylamine, Ethyl Chloride, Methyl Acetylene, Methyl Bromide Propane Propadiene, Propylene, Vinyl Chloride, Refrigerant Gases. LPG White Composite hose are suitable for : Liquid Ethylene at - 105°C, Liquid Ethane at - 88°C.



#### FEATURES

- 1) Maximum compatibility - handles a wide range of low temperature and cryogenic conveyants.
- 2) Reliability - Tested to industry standards 1 ½ times the rated working pressure.
- 3) Durability - Heavy duty Stainless Steel 316 inner and outer wire for maximum chemical and wear resistance.
- 4) Double end to end electrical continuity prevents static electricity build up and internal arcing.
- 5) Suitable for 0.9 Bar Vacuum rating.

#### CONSTRUCTIONS

<b>INNER WIRE</b>	: Stainless steel 316 / 304
<b>OUTER WIRE</b>	: Stainless steel 316 / 304
<b>CARCASS</b>	: Multiple layers of Polyamide fabric, film and polyester barrier layers
<b>COVER</b>	: Polyamide fabric
<b>TEMPERATURE RANGE</b>	: - 196°C to + 50°C
<b>END FITTING</b>	: As per client requirement which will be externally crimped or swaged

SIZE		MAX W.P		MIN. BURST		BEND RADIUS		WEIGHT		MAX. LENGTH
MM	INCH	LPG	LNG	LPG	LNG	MM	INCH	KG/MT	LB/FT	MT
25	1"	25	13	100	52.5	150	6	1.1	0.7	20
38	1.5"	25	13	100	52.5	175	7	1.8	1.2	20
50	2"	25	13	100	52.5	200	8	2.5	1.7	20
65	2.5"	25	13	100	52.5	200	8	3.9	2.6	20
75	3"	25	13	100	52.5	250	10	4.2	2.8	20
100	4"	25	13	100	52.5	500	20	5.3	3.5	20
150	6"	25	13	100	52.5	660	26	13.5	9.0	20
200	8"	25	13	100	52.5	910	36	21.0	14.0	20

#### SAFETY

- **COMPOHOSE™** assemblies are tested at 1.5 times rated W.P for safety & reliability.
- Manufacturer test certificate will be provided with the supply.
- Burst pressure indicated is at ambient temperature.
- Electrically continuity is achieved by the two wire bonded to the end fitting , this helps dissipate accumulated charge and to avoid static flash.

# MULTIHIGH TEMPERATURE COMPOSITE HOSE

## COMPOHOSE™

### STANDARD DUTY

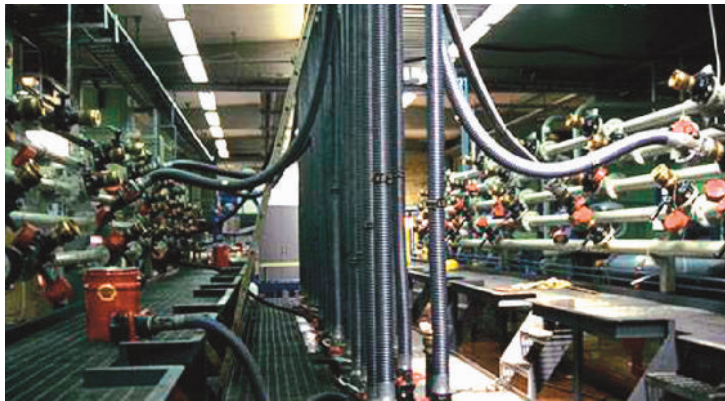
Multihigh Temp composite hose is designed for handling hot viscous petroleum by products and where high temperature upto + 180°C is requirement.

#### APPLICATION

The **COMPOHOSE™** assembly are recommended for handling hot viscous petroleum by products and where high temperature upto + 180°C is requirement. The spiral wound high tensile galvanized iron / Stainless Steel inner wire and outer wire for providing strength & the flexibility to maintain hose integrity under stress and strain.

#### COMPLIANCE

Multihigh Temperature composite hose are manufactured to suite High Temperature requirement.



#### PRODUCT HANDLE

Hot viscous petroleum by-products such as Tar and Bitumen.

#### FEATURES

- 1) Complete product compatibility for safe handling of all types Hot viscous petroleum by-products such as Tar and Bitumen.
- 2) Heat Resistant Fiberglass fabric outer cover.
- 3) Double end to end electrical continuity prevents static electricity build up and internal arcing.
- 4) Suitable for 0.9 Bar Vacuum rating.

#### CONSTRUCTIONS

<b>INNER WIRE</b>	: High tensile strength galvanized steel or Stainless Steel
<b>OUTER WIRE</b>	: High tensile strength galvanized steel or Stainless Steel
<b>CARCASS</b>	: Multiple layers of polyamide and polyester fabric, film
<b>COVER</b>	: Heat Resistant Fiberglass fabric
<b>TEMPERATURE RANGE</b>	: -30°C to + 180°C ( However pressure rating will reduce by 50% when temperature exceed 100°C.)
<b>END FITTING</b>	: As per client requirement which will be externally crimped or swaged

SIZE		MAX W.P		MIN. BURST		BEND RADIUS		WEIGHT		MAX. LENGTH
MM	INCH	BAR	PSI	BAR	PSI	MM	INCH	KG/MT	LB/FT	MT
25	1"	10	150	40	600	100	4	1.2	0.8	20
38	1.5"	10	150	40	600	150	6	1.4	0.9	20
50	2"	10	150	40	600	200	8	1.7	1.1	20
65	2.5"	10	150	40	600	250	10	2.4	1.6	20
75	3"	10	150	40	600	280	11.5	2.8	1.9	20

#### SAFETY

- **COMPOHOSE™** assemblies are tested at 1.5 times rated W.P for safety & reliability in accordance with EN 13765.
- Manufacturer test certificate will be provided with the supply.
- Burst pressure indicated is at ambient temperature.
- Electrically continuity is achieved by the two wire bonded to the end fitting, this helps dissipate accumulated charge and to avoid static flash.

# COUPLINGS

## RANGE OF HOSE COUPLINGS








**SHARDA INDUSTRIAL CORPORATION** offer a complete range of fittings for their hoses. Many of them are specified in the list of this guide, but virtually any type, for any use application can be supplied after consulting with our technical department. Adaptors, accessories, such as blank caps, dust plugs and delivery/filling nozzles are available.





## MATERIALS

All the hose fittings may be obtained in a variety of materials according to the compatibility with various media, including Stainless Steel, Brass, Aluminium, Carbon steel, Polypropylene, PTFE, and for special application, metal fittings can be coated with special PTFE coating.

## METHOD OF ATTACHMENT

**COMPOHOSE™** hoses are generally supplied with factory end connections to customer requirements, from our factory. All metal components, including end fittings, are electrically bonded to give full end to end electrical continuity. On specific request, electrically discontinuous hose assemblies can be provided. For all type of end fitting that enters the hose and forms the means by which the fittings is connected to the hose, is provided with scrolls on the surface, that correspond to the pitch of the internal helix wire of the hose. Then, the end fittings will be attached to the hose by the use of a special designed lip seal, made from elastomeric materials depending on the chemical resistance to the product conveyed, and a metal from elastomeric materials depending on the chemical resistance to the product conveyed, and an metal ferrule which can be externally swaged or crimped. This system guarantees a great safety to the complete assembly.

TYPE	PICTURE	SIZE	MATERIAL
<b>MALE THREADED</b> <b>Round</b> <i>Bspp (parallel thread) the face</i> <i>Bspt (tapered thread) flat face</i> <i>Bspp Cone Seat (60°)</i> <i>NPT</i>		3/4" upto 6"	<i>Stainless Steel 304 / 316 L</i> <i>Brass</i> <i>Aluminium</i> <i>Carbon Steel</i> <i>Polypropylene</i> <i>PTFE Coated</i>
<b>SWIVEL NUT ROUND</b> <b>Pin lug female threaded</b> <i>Bspp (parallel thread) flat face</i> <i>Bspp Cone Seat (60°)</i> <i>NPT</i>		1 1/2" upto 4"	<i>Stainless Steel 304 / 316 L</i> <i>Brass</i> <i>Carbon Steel</i>
<b>SWIVEL NUT HEXAGONAL</b> <b>Female threaded</b> <i>Bspp (parallel thread) flat face</i> <i>Bspp Cone Seat (60°)</i> <i>NPT</i>		3/4" upto 3"	<i>Stainless Steel 304 / 316 L</i> <i>Brass</i> <i>Carbon Steel</i>
<b>FIXED FLANGE</b> <i>UNI/DIN - PN6/10/16/25/40</i> <i>ANSI / ASA - 150 / 300#</i>		3/4" upto 10"	<i>Stainless Steel 304 / 316 L</i> <i>Carbon Steel</i>
<b>FLOATING (SWIVEL) FLANGE</b> <i>UNI/DIN - PN6/10/16/25/40</i> <i>ANSI / ASA - 150 / 300#</i>		3/4" upto 10"	<i>Stainless Steel 304 / 316 L</i> <i>Carbon Steel</i> <i>S. S. Stub end + C. S. Flange</i> <i>S. S. Sub end + S. S. 304 / 316L Flange</i> <i>Stub end + S. S. 304 / 316L Flange</i>
<b>CAMLOCK MALE</b>		3/4" upto 6"	<i>Stainless Steel 304 / 316 L</i> <i>Carbon Steel</i> <i>Aluminium</i> <i>Brass</i>
<b>CAMLOCK FEMALE</b>		3/4" upto 6"	<i>Stainless Steel 304 / 316 L</i> <i>Carbon Steel</i> <i>Aluminium</i> <i>Brass</i>
<b>TAFTED FITTINGS</b>		1" upto 10"	<i>Stainless Steel Slub</i> <i>and Coated with PTFE with</i> <i>S. S. 304 / 316 / Carbon Steel floating flange</i>

<p><b>HOSE GUARD</b></p>		<p>These Polyurethane hose suspension saddles provides perfect hose support during fitting and operation for all types and sizes of hoses from 1" up to 8".</p>
<p><b>SUPPORT</b></p>		<p>Wide polyester support slings are recommended for fitting or supporting <b>COMPOHOSE™</b> hoses during operation. We recommend the use of one support sling every 5 meter of hose. We can supply two different sizes:</p> <ul style="list-style-type: none"> <li>- Standard size support sling for all hoses up to 4" diameter</li> <li>- Large size support sling for all hoses over 4" diameter</li> </ul>
<p><b>ANTI ABRASION COLLARS</b></p>		<p>These collars have been studied to reduce abrasion damage to the hose when is in direct contact with the floor. Anti-abrasion collars are made in abrasion resistant rubber, fitted onto the outside diameter of the hose, at intervals from 300 to 600 mm, thus preventing floor contact.</p>
<p><b>ROPE LAGGING</b></p>		<p>External rope lagging can be provided to protect from abrasion as well as acts as a natural bending support. The rope also offers good insulation properties, particularly useful in the cryogenic applications.</p>

## Important Instruction for Storage, Handling & Cleaning

# COMPOHOSE™

### CLEANING OF **COMPOHOSE** HOSES

As regards the cleaning, the method that can be used depends upon service, location and type. Flushing out is adequate in most situation using a variety fo fluids e.g. clean water, hot water, sea water, detergents and solvents at ambient temperature. If seawater is used the hose must be well drained after cleaning, to minimize corrosion. Care must be taken the maximum temperature of the hose is not exceeded. Steam lances should NOT be used. Compressed air may be used on open ended polypropylene lined hoses, but is not recommended on PTFE lined hoses. Polypropylene hoses can be cleaned with "loose" steam (i.e. at no pressure, 1 Bar = 99°C), taking care not using lances. PTFE lined hoses can be cleaned at higher temperature (up to 160°C) taking care that the PTFE lining is much more delicate than Polypropylene, so we do not recommend using air or water or steam at high pressure with this type of hoses to not compromises integrity if inner layer. Mechanical methods of cleaning must NOT be used e.g. pigging. It is Important that the hose is electrically earthed during operations, to avoid build up to static charge.

### LENGTH

A characteristic of composite hose is elongation. This characteristic should not be used solely as an assessment of the condition of the hose or an indication of failure. For application where length in use is critical, this data should be advised to the manufacturer. The length of hose should be the OAL including the end fitting. OAL measurement should be from flange face to flange face, seat to seat, end of threads to the threads, etc. In the fabricated condition, after testing, the overall length, (OAL), should be within +5% - 2% of the OAL.

### STORAGE

After service, hose assemblies should be flushed out and drained. Ideally, stored hoses should be dry and kept off the ground in a straight line out of direct sunlight.

### INSTALLATION & USAGE

- Hose must be correctly supported during use. A characteristic of composite hose is flexibility, therefore the supports should be arranged so that the hoses are never bent beyond the minimum bend radius. Supports have to be appropriate, never use a single rope, chain or wire, but use slings, saddles wide enough to spread the load sufficiently so that the hose is not deformed in the area of support.
- Flanged hose assemblies should ideally have one end secured with a floating flange.
- Hose assemblies must not be twisted either on installation or in use.
- Hose assemblies subject to movement while operating should be installed in such a way that flexing occurs in the same plane.
- When installing hose assemblies, careful attention should be paid to minimum bend radii specification.










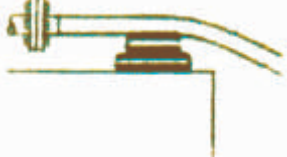

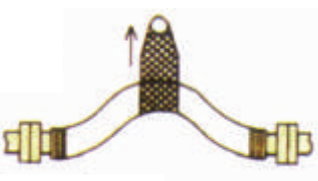


### REPAIRS

Depending on the overall condition of the hose assembly, it is possible to repair hoses which have been damaged during service. Repair Composite hoses requires specialist knowledge, therefore please ask to consult our Technical Department.

# HANDLING & MAINTENANCE

## COMPOHOSE™

The life of a hose depends on a number of possibly prejudicial factors. Consequently, the end user must carry out periodic preventive maintenance, above all when the conditions of use foresee high pressure service and/or conveyance of aggressive materials. In any case, when there are indication of possible reduced performance, the product should be changed, or checked carefully at the least. The following recommendations are the minimum to which the user must adhere.

 <p>Fig. 1</p>	<p><b>TRACTION</b> : Do not use hose in between (FIG. 1). Let it form a small curve (FIG 2).</p>	 <p>Fig. 2</p>
 <p>Fig. 3</p>	<p><b>TORSION</b> : Hose is not manufactured to work in torsion (FIG 3). During installation it is essential to ensure that the hose is not twisted. Let it follow an ideal lay-line(FIG 4).</p>	 <p>Fig. 4</p>
 <p>Fig. 5</p>	<p><b>BENDING RADIUS</b> : Installation tighter than the minimum bending radius reduces the life of the hose considerably. Moreover it is necessary to avoid bending close to the end fittings. (FIG 5 &amp; 6)</p>	 <p>Fig. 6</p>
 <p>Fig. 7</p>	<p><b>INSTALLATION</b> : The hoses must be supported to allow normal movement when must under pressure (dimensional variations). Do not rest hose on sharp edges (FIG. 7 &amp; 7B). Take adequate precautions (FIG 8 &amp; 8B). Do not support hoses with ropes or chains (FIG 9). Flexible hose-supports or polyester slings are recommended (FIG. 10).</p>	 <p>Fig. 8</p>
 <p>Fig. 7b</p>	<p><b>STORAGE</b> : Hose must be stored in a relaxed condition free from tension, compression or other deformation. Contact with object that could pierce or cut must be avoided. When not in use, hose should be stored in a dark place preferably, avoiding direct sunlight and rain. It must be protected from rodents and insects. When such a risk is probable, appropriate precautions must be taken.</p>	 <p>Fig. 8b</p>
 <p>Fig. 9</p>	<p><b>NORMS AND METHOD OF USE</b> : Prior to installation it is necessary to check the characteristics of the hose carefully to ensure that type, diameter and length conform to the required specification. (FIG 12) Moreover a visual check must be carried out to make sure that there are no obstructions, cuts damaged cover or any other evident imperfections (FIG 11). Although the hoses are manufactured to guarantee exceptional resistance to abrasion, it is advisable to move them with care, avoiding knocks, dragging over abrasive surfaces or crushing. Furthermore, hoses must not be pulled violently when twisted or knotted.</p>	 <p>Fig. 10</p>
 <p>Fig. 11</p>	<p><b>MAINTENANCE</b> : Even when choice, storage and installation is carried out correctly, regular maintenance is necessary. During regular checks, special attention must be paid to couplings and to the appearance of irregularities which can indicate deterioration of the hose. After use, it is advisable to empty the hoses carefully and if necessary, clean thoroughly. We recommend in any case, that the hoses be checked and tested under pressure once a year.</p>	 <p>Fig. 12</p>
	<p>NEVER weld reduction couplings or flanges onto original hose fittings.</p> <p>NEVER close or hold the coupling ferrules in a bench vice as they could be deformed. If necessary, hold the hose itself, closing the vice onto the outside spirals of the hose.</p>	

# COMPOHOSE™ COMPOSITE HOSE

**TOTALLY ENGINEERED FROM INNER WIRE TO OUTER COVER FOR MAXIMUM SERVICE AND COMPATIBILITY...**

**Inner wire...** provides structural support and crush resistance.

High tensile strength Galvanized Steel, Stainless Steel or special polypropylene-covered inner wire available to provide optimum chemical compatibility and maximum hose service life.

**Inner fabric or film liner...** provides resistance to chemical attack and protects films layers and end fittings from abrasion. It provides axial strength and greater tensile strength.

Reinforced fabrics provide pressure capabilities and protect barrier film layers.

**Reinforcing fabrics and barrier films....** handle virtually all solvents, and are compatible with the vast majority of commonly transported chemicals at normal transfer temperatures.

They are unaffected by 100% aromatics and prevent permeation by polar and non-polar liquids.

PTFE liners are available to handle more corrosive chemicals that would attack standard materials.

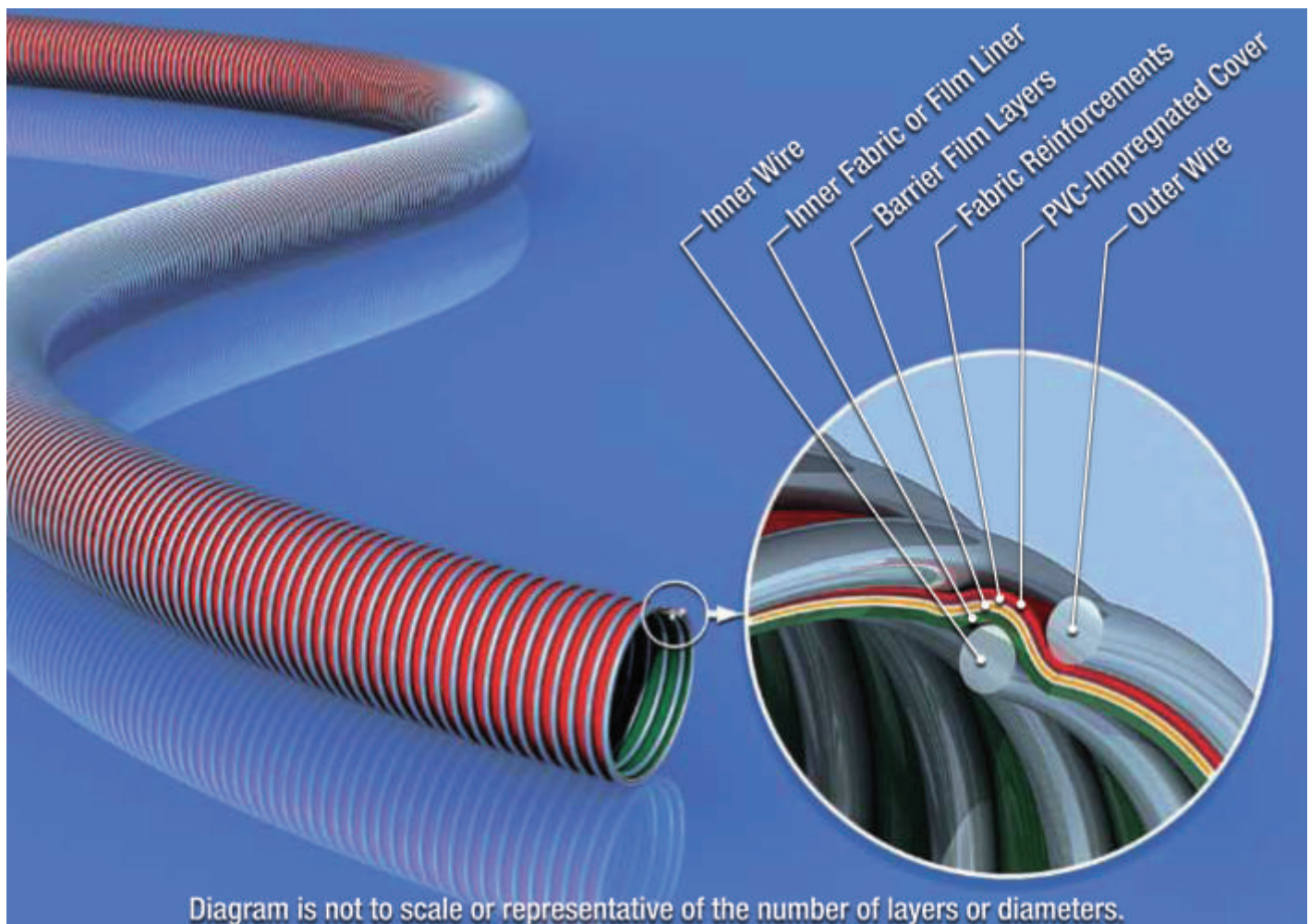
**PVC-impregnated cover...** prevents hose abrasion, and provides UV and ozone resistance.

**Outer wire..** provides over-all hoop strength, structural integrity and double electrical continuity.

Galvanized Steel, Stainless Steel or polypropylene coated is available.

**Externally swaged/crimped hose fittings...** Achieve perfect union and assure performance up to rated burst pressure.

## DETAIL CONSTRUCTION OF COMPOHOSE™



# CONVEYANTS LIST FOR

## COMPOHOSE™ COMPOSITE POLYPROPYLENE HOSES

The following list shows the suitability of the **COMPOHOSE™** range of polypropylene hoses for use with various conveyants.

The information given is based on the best data available. However it must be appreciated that the recommendations are given only as a guide and apply only to the chemical compatibility of the hoses. The description of a hose as 'suitable' does not constitute a guarantee that the hose complies with any regulations or operating conditions governing the handling of the chemical or the use of the hose. A hose conveying a chemical having an oxidising effect should be checked for internal discolouration, particularly if the hose may subsequently be used on a conveyant where colour contamination is not permissible.

Inner wire composition of polypropylene hoses :-

1. PPG : PP Coated Inner wire  
PP Fabric  
Galvanised Steel Outer wire
2. SPG : Stainless Steel Inner wire  
PP Fabric  
Galvanised Steel Outer wire
3. GPG : Galvanised Steel Inner wire  
PP Fabric  
Galvanised Steel Outer wire

Suitability is indicated by the following categories:

- A - SUITABLE for use at 60°C.
- B - SUITABLE for use at worldwide ambient temperatures.
- C - SUITABLE for INTERMITTENT use only at worldwide AMBIENT temperature. Intermittent use is defined as that typical of ship to shore or road tanker transfer operations where the hose is not left full to product after use.
- D - UNSUITABLE or no data available.

### END FITTING

- - End fitting material is suitable for the operating conditions applicable to the hose.
- X - Unsuitable or no data available.

End fitting material:-

- CS - Carbon Steel
- SS - Stainless Steel
- BS - Brass / GM Metal

For conveyants not listed or service conditions outside the scope of those described in this leaflet consult Senior Tift Technical Department.

Conveyant	Hose			End Fittings		
	1	2	3	CS	SS	BS
Acetaldehyde	C	C	D	X	.	.
Acetic acid (<60%)	A	A	D	X	.	.
Acetic acid (Glacial)	B	B	D	X	.	.
Acetic anhydride	B	B	D	X	.	.
Acetoacetic ester	C	C	D	.	.	.
Acetone	A	A	A	.	.	.
Acetone cyanohydrin	B	B	D	.	.	X
Acetonitrile	B	B	B	.	.	.
Acetophenone	B	B	B	.	.	.
Acetylacetone	B	B	B	.	.	.
Acetyl chloride		PTFE			PTFE	
Acetylene						
Acetylene dichloride	B	B	B	.	.	.
Acetylene tetrachloride	C	C	C	.	.	.
Acrolein (acrylaldehyde)	B	B	B	.	.	.
Acrylic acid	B	B	D	X	.	.
Acrylonitrile	A	A	D	.	.	.
Adipic acid aqueous	A	A	A	X	.	.
Adiponitrile	B	B	B	.	.	.
Allyl alcohol	A	A	A	.	.	.
Allyl bromide	C	C	C	.	.	X
Allyl chloride	C	C	C	.	.	X
Alums aqueous (Saturated)	A	A	A	.	.	.
Aluminium salts excluding halides (Saturated)	A	B	D	.	.	X
Aluminium chloride (Saturated)	A	D	D		Polypropylene	
Aminoethyl ethanolamine	B	B	D	.	.	.
Ammonia solution	A	A	D	.	.	X
Ammonia nitrate		PTFE		X	.	X
Aluminium salts excluding halides (Saturated)	A	B	D	.	.	X
Aluminium chloride (Saturated)	A	C	D	.	.	X
Amyl acetate	C	C	C	.	.	.
Amyl alcohol	B	B	B	.	.	.
Amyl chloride	C	C	C	.	.	.
Aniline (dedicated hose)	C	B	X	.	.	X
Animal oils	A	A	A	.	.	.
Anisole	C	C	C	X	.	X
Antimony chloride	B	D	D	X	.	X
Aqua regia	C	D	D		Polypropylene	
Aviation fuel	C	C	C	.	.	.
Barium salts (Saturated)	A	B	D	.	.	X
Beer	A	A	D	.	.	.
Benzaldehyde	C	C	D	X	.	X
Benzene	C	C	D	.	.	.
Benzene sulphonic acid	C	C	D	X	.	X
Benzoic acid	A	A	D	.	.	X
Benzoyl chloride	C	C	C	.	.	.
Benzyl alcohol	A	A	A	.	.	.
Benzyl butyl phthalate	B	B	B	.	.	.
Benzyl chloride	C	C	C	X	.	.
Bleach (<12.5% Cl)	C	C	D	.	.	X
Borax aqueous	A	A	A	.	.	X
Boric acid aqueous	A	A	D	X	.	.
Brine (Saturated)	A	C	D	X	.	X

Conveyant	Hose			End Fittings		
	1	2	3	CS	SS	BS
Bromine water (Saturated)						
Butadiene		B	B	B	.	.
Butane liquid						
Butanediol	B	B	B	.	.	.
Butyl alcohol	A	A	A	.	.	.
Butyl acetate	C	C	C	.	.	.
Butyl acrylate	B	B	B	.	.	.
N-Butylamine	B	B	D	.	.	.
Butyl benzene	B	B	B	.	.	.
Butyl benzyl phthalate	B	B	B	.	.	.
Butyl bromide		PTFE				PTFE
Butyl butyrate	B	B	B	.	.	.
Butyl carbitol	A	A	A	.	.	.
Butyl carbitol acetate	C	C	C	.	.	.
Butyl cellosolve	A	A	A	.	.	.
Butyl cellosolve acetate	C	C	C	.	.	.
Butylene glycol	A	A	A	.	.	.
Butyl ether	B	B	B	.	.	.
Butyl ethyl ether	B	B	B	.	.	.
Butyl methacrylate	C	C	C	.	.	.
Butyl methoxyethyl ether	C	C	C	.	.	.
Butyl phthalate	A	A	A	.	.	.
Butyl stearate	B	B	B	.	.	.
Butyratehydride	C	C	D	.	.	.
Butyric acid (<20%)	B	B	B	.	.	.
Butyrolactone	C	C	C	.	.	.
Calcium salts excluding halides and hypochlorite (Saturated)	A	B	D	.	.	X
Calcium alkyl salicylate solution	A	A	D	.	.	.
Calcium chloride (Saturated)	A	C	D	X	.	X
Calcium hypochlorite (<12.5% Cl)	C	C	D	X	.	.
Camphor oil	C	C	C	.	.	.
Caprylic acid	A	A	A	.	.	.
Carbinols	B	B	B	.	.	.
Carbitols	B	B	B	.	.	.
Carbitol acetate	C	C	C	.	.	.
Carbolic acid	A	A	D	.	.	X
Carbolic oil (middle oil)	C	C	C	.	.	.
Carbon disulphide	C	C	C	.	.	.
Carbon tetrachloride	C	C	C	.	.	.
Carbonic acid	A	A	D	.	.	X
Cashew nut shell oil	B	B	B	.	.	.
Caustic potash (<50%)	A	B	D	.	.	.
Caustic soda (<50%)	A	B	C	.	.	X
Cellosolve	B	B	B	.	.	.
Chloroacetic acid	B	D	D			Polypropylene
Chlorine						
Chlorobenzene	C	C	C	.	.	.
Chlorobutane	C	C	C	.	.	.
Chloroform	C	C	C	.	.	.
Chloroprene	C	C	C	X	.	.
Chloropropionic acid	C	C	D	X	.	X
Chlorosulphonic acid						
Chlorotoluene	C	C	C	.	.	.



# CONVEYANTS LIST FOR

# COMPOHOSE™ COMPOSITE POLYPROPYLENE HOSES

Conveyant	Hose			End Fittings		
	1	2	3	CS	SS	BS
Chrome alum (Saturated)	A	A	D	.	.	.
Chromic acid aqueous (<50%)	C	C	D	X	.	X
Citric acid	A	A	D	X	.	.
Coal tar naphtha	B	B	B	.	.	.
Copper salts excluding halides (Saturated)	A	A	D	.	.	X
Copper chloride (Saturated)	A	D	D	Polypropylene		
Creosote (wood or coal tar)	B	B	B	.	.	.
Cresols (< 90%)	A	A	A	.	.	X
Crotonaldehyde	C	C	C	.	.	X
Cumene	B	B	B	.	.	.
Cyclohexane	B	B	B	.	.	.
Cyclohexanol	B	B	B	.	.	.
Cyclohexanone	C	C	C	.	.	.
Cyclohexylamine	B	B	D	.	.	X
Cyclopentane	B	B	B	.	.	.
p-Cymene	B	B	B	.	.	.
C.S.F.	X	X	X	X	X	X
Decalin	PTFE			.	.	.
Decyl alcohol	B	B	B	.	.	.
Decyl acrylate	B	B	D	.	.	.
Detergents	A	A	A	.	.	.
Dextrin	A	A	A	.	.	.
Diacetone alcohol	B	B	B	.	.	.
Diaminoethylamine	B	B	C	.	.	.
Diamylamine	B	B	C	.	.	.
Dibromoethane	B	B	D	.	.	.
Dibutylamine	B	B	C	.	.	X
Dibutyl ether	C	C	C	.	.	.
Dibutyl phthalate	B	B	B	.	.	.
Dibutyl sebacate	B	B	B	.	.	.
Dichloroacetic acid	C	D	D	Polypropylene		
Dichlorobenzene	C	C	C	.	.	X
Dichlorobutane	C	C	C	.	.	.
Dichlorodifluoromethane	Gas Hose			.	.	.
Dichloroethane	C	C	C	.	.	.
Dichloroethylene	C	C	C	.	.	.
Dichloroethyl ether	C	C	C	.	.	X
Dichloromethane	C	C	C	.	.	.
Dichloropropane	C	C	C	.	.	.
Dichloropropylene	C	C	C	.	.	.
Dichloropropionic acid	C	C	D	X	.	X
Dicyclopentadiene	D	D	D	X	X	X
Diesel oil	B	B	B	.	.	.
Diethanolamine	A	A	D	.	.	X
Diethylamine	B	B	D	.	.	X
Diethylaminoethanol	B	B	C	.	.	.
Diethylbenzene	B	B	B	.	.	.
Diethylene dioxide	B	B	B	.	.	.
Diethylene glycol	A	A	A	.	.	.
Diethylene glycol diethyl ether	B	B	B	.	.	.
Diethylene glycol monobutyl ether	C	C	C	.	.	.
Diethylene glycol monoethyl ether	C	C	C	.	.	.
Diethylene glycol monobutyl ether acetate	C	C	C	.	.	.
Diethylene glycol monobutyl ether acetate	C	C	C	.	.	.
Diethylene glycol monomethyl ether	C	C	C	.	.	.
Diethylene glycol monomethyl ether acetate	C	C	C	.	.	.
Diethylenetriamine	B	B	D	.	.	X
Diethyl ethanolamine	B	B	D	.	.	X
Diethyl ether	B	B	B	.	.	.
Diethyl ketone	B	B	B	.	.	.
Diethyl oxalate	B	B	B	.	.	.
Diethyl phthalate	A	A	A	.	.	.
Diethyl sebacate	A	A	A	.	.	.
Diethyl sulphate	B	B	D	.	.	.
Diphenylamine (molten)				X	.	X
Diisobutylamine	B	B	B	.	.	.
Diisobutylene	B	B	B	.	.	.
Diisobutyl ketone	B	B	B	.	.	.
Diisobutyl phthalate	B	B	B	.	.	.
Diisobutyl adipate	B	B	B	.	.	.
Diisobutyl phthalate	A	A	A	.	.	.
Diisopropanolamine	B	B	D	.	.	X
Diisopropylamine	B	B	D	.	.	X
Diisopropyl ether	B	B	B	.	.	.
Diisopropyl ketone	B	B	B	.	.	.
Dimethylamine	B	B	D	.	.	X
Dimethyl ethanolamine	B	B	D	.	.	X
Dimethyl formamide	A	A	A	.	.	.
Dimethyl ketone	A	A	A	.	.	.
Dimethyl phthalate	B	B	B	.	.	.

Conveyant	Hose			End Fittings		
	1	2	3	CS	SS	BS
Dimethyl sulphate	B	B	D	.	.	.
Dimethyl sulphide	B	B	B	.	.	.
Dinitrobenzene	C	C	C	.	.	.
Diocylamine	B	B	D	.	.	X
Diocyl phthalate	B	B	B	.	.	.
Diocyl sebacate	B	B	B	.	.	.
Dioxane	C	C	C	.	.	.
Dipentene	B	B	B	.	.	.
Diphenyl ether	B	B	B	.	.	.
Diphenylmethane diisocyanate	B	B	B	.	.	.
Diphenyl phthalate	B	B	B	.	.	.
Dipropylamine	B	B	B	.	.	.
Dipropylene glycol	A	A	A	.	.	.
Dipropylene glycol monomethyl ether	C	C	C	.	.	.
Dodecyl alcohol	B	B	B	.	.	.
Dodecyl benzene	B	B	B	.	.	.
Dodecyl benzene sulphonic acid	C	C	D	X	.	X
Dodecyl phenol	B	B	B	.	.	.
Dodecyl methacrylate	D	D	D	X	X	X
Epichlorohydrin	B	B	B	.	.	.
Ethyl alcohol	A	A	A	.	.	.
Ethanolamine	A	A	B	.	.	.
Ethoxy ethanol	C	C	C	.	.	.
Ethoxyethyl acetate	C	C	C	.	.	.
Ethoxy propanol	C	C	C	.	.	.
Ethyl acetate	C	C	C	.	.	.
Ethyl acrylate	B	B	B	.	.	.
Ethyl aluminium dichloride	PTFE			.	.	.
Ethylamine	B	B	C	.	.	.
Ethylbenzene	B	B	B	.	.	.
Ethyl butanol	B	B	B	.	.	.
Ethyl butylamine	B	B	C	.	.	.
Ethyl chloride	C	C	C	.	.	.
Ethyl cyclohexane	C	C	C	.	.	.
Ethyl cyclohexylamine	C	C	C	.	.	.
Ethylene carbonate	B	B	C	.	.	.
Ethylene chloride	C	C	C	.	.	.
Ethylene chlorohydrin	B	B	B	.	.	.
Ethylene cyanohydrin	B	B	B	.	.	.
Ethylene diamine	B	B	B	.	.	.
Ethylene dibromide	B	B	C	.	.	.
Ethylene dichloride	C	C	C	.	.	.
Ethylene glycol	A	A	A	.	.	.
Ethylene glycol monobutyl ether	A	A	A	.	.	.
Ethylene glycol methyl butyl ether	B	B	B	.	.	.
Ethylene glycol monobutyl ether acetate	B	B	B	.	.	.
Ethylene glycol monoethyl ether	A	A	A	.	.	.
Ethylene glycol monomethyl ether	B	B	B	.	.	.
Ethyl ether	B	B	B	.	.	.
Ethyl formate	B	B	D	.	.	.
Ethylene oxide (dedicated hose0	B	B	D	X	.	X
Ethylene glycol monomethyl ether acetate	B	B	B	.	.	.
Ethyl hexanoic acid	B	B	D	X	.	X
Ethyl hexyl alcohol	A	A	A	.	.	.
Ethylene glycol monophenyl ether	B	B	B	.	.	.
Ethyl hexyl acrylate	B	B	C	.	.	.
2-Ethyl hexylamine	B	B	C	.	.	.
Ethyl odide	C	C	C	.	.	.
Ethyl isobutyl ether	B	B	D	.	.	.
Ethyl methacrylate	C	C	C	.	.	.
2-Ethyl-3-propylacrolein	C	C	C	.	.	.
Ethyl propyl ether	B	B	B	.	.	.
Ethyl propyl ketone	C	C	C	.	.	.
Ethyl silicate	A	A	A	.	.	.
Ethyl sulphate	B	B	B	.	.	.
Ethyl vinyl ether	B	B	B	.	.	.
Fatty acids	A	A	D	X	.	.
Fatty alcohols	A	A	A	.	.	.
Ferrous, ferric salts excluding halides	A	B	D	.	.	.
Fluorinated refrigerants	Gas Hose			.	.	.
Fluorine	PTFE			.	.	.
Fluosilicic acid	A	A	D	X	.	X
Formaldehyde solution (< 45%)	A	A	A	.	.	.
Formanide	A	B	D	X	.	.
Formic acid	A	A	D	X	.	.
Freons	Gas Hose			.	.	.
Fruit Juice	A	A	D	.	.	.
Fructose	A	A	A	.	.	.

# CONVEYANTS LIST FOR

## COMPOHOSE™

## COMPOSITE POLYPROPYLENE HOSES

Conveyant	Hose			End Fittings		
	1	2	3	CS	SS	BS
Fuel oil	B	B	B	•	•	•
Furfural	B	B	B	•	•	•
Furfuryl alcohol	B	B	B	•	•	•
Gallic acid solution	A	A	C	•	•	•
Gasoline	B	B	B	•	•	•
Gelatine aqueous	A	A	A	•	•	•
Glucosic acid	A	A	C	•	•	•
Glucose aqueous	A	A	A	•	•	•
Glycerine	A	A	A	•	•	•
Green sulphate liquor	B	B	D	X	•	X
Glycols aqueous	A	A	A	•	•	•
Glycolic acid aqueous (<37%)	A	A	D	•	•	•
Heptane	B	B	B	•	•	•
Heptanoic acid	B	B	D	X	•	X
Heptanol	A	A	A	•	•	•
Heptanone	B	B	B	•	•	•
Heptene	A	A	A	•	•	•
Hexamethylene diamine	B	B	C	•	•	•
Hexene	B	B	B	•	•	•
Hexanol	A	A	A	•	•	•
Hexylamine	B	B	D	•	•	•
Hexane	A	A	A	•	•	•
Hexylene glycol	A	A	A	•	•	•
Hydrazine hydrate	B	B	D	X	•	X
Hydrobromic acid (<50%)	A	D	D	Polypropylene		
Hydrochloric acid (<37%)	C	D	D	or PVDF		
Hydrofluoric acid (<50%)	C	D	D	coated steel		
Hydrofluosilicic acid	A	A	D	X	•	•
Hydrogen peroxide (<50%)	B	B	D	X	•	X
Hydrogen sulphide aqueous (Saturated)	A	D	D	X	•	X
Hexamethylene diamine	B	B	D	•	•	•
Hexamethylene tetramine	B	B	D	•	•	•
Hydroquinone	A	A	A	•	•	X
Iodine solution	B	D	D	•	•	X
Iron salts excluding halides (Saturated)	A	B	D	•	•	•
Iron halides	A	D	D	Polypropylene		
Isoamyl acetate	B	B	B	•	•	•
Isoamyl alcohol	B	B	B	•	•	•
Isoamyl bromide	B	D	D	X	•	X
Isoamyl butyrate	B	B	B	•	•	•
Isoamyl chloride	C	C	D	X	•	X
Isoamyl ether	B	B	B	•	•	•
Isoamyl alcohol	A	A	A	•	•	•
Isoamyl acetate	B	B	B	•	•	•
Isoamyl acrylate	B	B	B	•	•	•
Isobutylamine	B	B	D	•	•	•
Isobutyl bromide	B	D	D	X	•	X
Isobutyl chloride	B	D	D	X	•	X
Isobutyl formate	C	C	C	•	•	•
Isobutyl methyl ketone	B	B	B	•	•	•
Isobutyraldehyde	B	B	D	•	•	•
Isobutyl ether	C	C	C	•	•	•
Isocetane	C	C	C	•	•	•
Isodecyl alcohol	A	A	A	•	•	•
Isopentane	C	C	C	•	•	•
Isopentene	C	C	C	•	•	•
Isophorone	B	B	B	•	•	•
Isoprene	B	B	B	•	•	X
Isopropyl alcohol	A	A	A	•	•	•
Isopropanolamine	B	B	D	•	•	•
Isopropyl acetate	C	C	C	•	•	•
Isopropylamine	B	B	D	•	•	•
Isopropylbenzene	B	B	B	•	•	•
Isopropyl chloride	B	D	D	X	•	X
Isopropyl ether	C	C	C	•	•	•
Isopropyl toluene	B	B	B	•	•	•
Jame	A	A	B	•	•	•
Jet fuel	C	C	C	•	•	•
Kerosene	B	B	B	•	•	•
Ketones	B	B	B	•	•	•
Lactic acid (<20%)	A	B	B	•	•	•
Lanolin	A	A	A	•	•	•
Lard	A	A	A	•	•	•
Latex (Low viscosity)	A	A	A	•	•	•
Lauryl alcohol	B	B	B	•	•	•
Lead alkyls	A	A	A	•	•	X
Lead salts (Saturated)	A	B	D	X	•	X
Ligroin	C	C	C	•	•	•

Conveyant	Hose			End Fittings		
	1	2	3	CS	SS	BS
Limonene	B	B	B	•	•	•
Linseed oil	A	A	A	•	•	•
Lubricating oil	B	B	B	•	•	•
Magnesium salts (Saturated)	A	B	D	X	•	X
Maleic acid in solution	A	B	D	X	•	•
Maleic anhydride in solution	B	B	D	X	•	•
Malic acid in solution	B	B	D	X	•	X
Manganese salts (Saturated)	A	B	D	X	•	X
Mercuric chloride (Saturated)	A	D	D	•	•	•
Mesityl oxide	A	A	B	•	•	•
Methacrylic acid	B	B	D	•	•	•
Methyl alcohol	A	A	A	•	•	•
Methyl acetate	C	C	C	•	•	•
Methyl aceto acetate	C	C	D	X	•	•
Methyl acetone	B	B	B	•	•	•
Methyl acrylate	B	B	B	•	•	•
Methylamine	B	B	C	•	•	•
Methylamyl acetate	C	C	C	•	•	•
Methylamyl alcohol	B	B	B	•	•	•
Methyl amylketone	B	B	B	•	•	•
Methyl tert-butyl ether	C	C	C	•	•	•
Methyl butyl ketone	B	B	B	•	•	•
Methyl cellosolve	B	B	B	•	•	•
Methyl cellosolve acetate	C	C	C	•	•	•
Methyl chloride	A	A	A	X	•	•
Methyl cyanide	B	B	B	•	•	•
Methyl cyclohexane	B	B	B	•	•	•
2-methyl pentene	C	C	C	•	•	•
Methylene bromide	C	C	D	•	•	•
Methylene chloride	C	C	C	•	•	•
Methyl ethyl ketone	C	C	C	•	•	•
Methyl ethylpyridine	C	C	C	•	•	X
Methyl formate	C	C	C	•	•	•
Methyl isobutyl ketone	C	C	C	•	•	•
Methyl methacrylate	C	C	C	•	•	•
Methyl nitrobenzene	B	B	B	•	•	•
Methyl pentene	B	B	B	•	•	•
Methyl pyridene	B	B	B	•	•	•
Methylstyrene	B	B	B	•	•	•
Mineral jelly	A	A	A	•	•	•
Mineral oil	B	B	B	•	•	•
Mineral spirits	B	B	B	•	•	•
Mineral wax	D	D	D	•	•	•
Molasses	A	A	A	•	•	•
Monoethanolamine	A	A	B	•	•	•
Monoethylamine	B	B	C	•	•	•
Monoisopropanolamine	B	B	D	•	•	•
Mononitrobenzene	B	B	B	•	•	•
Morpholine	B	B	C	•	•	•
Motor fuel anti-knock compounds (leaded)		PTFE		•	•	X
Motor fuel anti-knock compounds (unleaded)	B	B	B	•	•	•
Naphtha	B	B	B	•	•	•
Naphtha solvent	C	C	C	•	•	•
Naphthalene (in solution)	A	A	A	•	•	•
Naphthalene molten	D	D	D	X	X	X
Neohexane	B	B	B	•	•	•
Nickel chloride (Saturated)	A	D	D	X	•	X
Nickel salts, excluding chloride (Saturated)	A	B	D	X	•	X
Nitric acid (<10%)	A	A	D	X	•	X
Nitric acid (10-60%)	C	C	D	X	•	X
Nitric acid (>60%)						
Nitrobenzene	B	B	B	•	•	X
O-nitrophenol (soln)	A	A	D	•	•	•
Nitropropane	B	B	B	•	•	•
Nitrotoluene	B	B	B	•	•	•
Nonane	B	B	B	•	•	•
Nonyl alcohol	B	B	B	•	•	•
Nonylphenol	B	B	C	•	•	•
Octane	B	B	B	•	•	•
Octanol	B	B	B	•	•	•
Octyl acetate	C	C	C	•	•	•
Octyl acrylate	B	B	B	•	•	•
Oils most commercial	B	B	B	•	•	•
Oleic acid	B	B	D	X	•	X
Oleum		PTFE		X	•	X
Oxalic acid (<50%)	B	B	D	X	•	X

# CONVEYANTS LIST FOR

## COMPOHOSE™

## COMPOSITE POLYPROPYLENE HOSES

Conveyant	Hose			End Fittings		
	1	2	3	CS	SS	BS
Palm oil	B	B	B	.	.	.
Paraffin wax	A	A	A	.	.	.
Paraldehyde	C	C	C	.	.	.
Pentachloroethane	C	C	C	.	.	.
1,3-pentadiene	C	C	C	.	.	.
Pentane	B	B	B	.	.	.
Pentanol	A	A	A	.	.	.
Pentanone	B	B	B	.	.	.
Pentene	B	B	B	.	.	.
Perchloric acid (<50%)	B	D	D	X	.	X
Perchloroethylene	C	C	C	X	.	.
Petrolatum	A	A	A	.	.	.
Petroleum	A	A	A	.	.	.
Petroleum ether	C	C	C	.	.	.
Petroleum naphtha	C	C	C	.	.	.
Phenol	A	A	B	X	.	.
Phenoxyethanol	C	C	C	.	.	.
Phenylhydrazine	C	C	D	X	.	X
Phosphoric acid (<95%)	A	A	D	X	.	X
Phosphorus oxychloride	C	D	D	Polypropylene		
Phosphorus pentoxide	A	B	D	X	.	X
Phosphorus trichloride	B	D	D	X	.	X
Phosphorus	D	D	D	X	X	X
Phthalic acid (<50%)	B	B	D	X	.	X
Phthalic anhydride	D	D	D	X	X	X
Picric acid (1%)	B	B	D	X	.	X
Pinene	B	B	B	.	.	.
Pine oil	B	B	B	.	.	.
Plasticisers most commercial	B	B	B	.	.	.
Polyethylene glycol	B	B	B	.	.	.
Polypropylene glycol	B	B	B	.	.	.
Polymethylene polyphenyl isocyanate	B	B	B	.	.	.
Potassium salts excluding halides (Saturated)	A	B	D	X	.	X
Potassium halides	A	D	D	.	.	.
Propyl alcohol	A	A	A	.	.	.
Propenoic acid	B	B	D	X	.	.
Propiolactone	C	C	C	.	.	.
Propionaldehyde	C	C	C	.	.	.
Propionic acid	B	B	D	X	.	.
Propionic anhydride	C	C	D	X	.	.
Propyl acetate	C	C	C	.	.	.
Propylamine	B	B	D	.	.	.
Propylene glycol	A	A	A	.	.	.
Propylene glycol monomethyl ether	B	B	B	.	.	.
Propylene glycol monoethyl ether	B	B	B	.	.	.
Propylene oxide (dedicated hose)	B	B	D	.	.	.
Propylene (tetramer & trimer)	C	C	C	X	.	.
Prussic acid	A	A	D	X	.	X
Pyridine	B	B	D	.	.	.
Pyrosulphuric acid	PTFE			.	.	.
Salt solutions excluding halides	A	B	D	.	.	.
Sea water	A	D	D	X	.	.
Sewage	B	B	D	.	.	.
Silicon oil	A	A	A	.	.	.
Silver salts excluding halides (Saturated)	A	B	D	.	.	.
Silver halides (Saturated)	A	D	D	Polypropylene		
Soap solutions	A	A	B	.	.	.
Sodium salts excluding halides (Saturated)	A	B	D	.	.	.
Sodium chlorate (solution of 50% or less)	A	A	D	X	.	.
Sodium chloride (Saturated)	A	B	D	X	.	.
Sodium chromate	B	B	B	.	.	.
Sodium hydrosulphide	A	B	D	.	.	.
Sodium hypochlorite (<15%)	C	C	D	X	.	X
Sodium hydroxide solution	A	A	C	.	.	.
Stannous, stannic salts excluding halides	A	B	D	.	.	.
Starch aqueous	A	A	B	.	.	.
Styrene monomer	B	B	B	.	.	.
Sugar syrup	A	A	A	.	.	.
Sulphamic acid	A	A	D	X	.	X
Sulpholane	D	D	D	X	X	X
Sulphonyl chloride	Metallic/PTFE			.	.	.
Sulphur chloride	Metallic/PTFE			.	.	.

Conveyant	Hose			End Fittings		
	1	2	3	CS	SS	BS
Sulphur dioxide	C	C	D	X	.	X
Sulphur molten	PTFE			X	X	X
Sulphuric acid (<20%)	B	B	D	.	.	X
Sulphuric acid (20-85%)	B	D	D	Polypropylene		
Sulphuric acid (>85%)	C	C	D	.	.	X
Sulphurous acid	B	B	D	.	.	X
Sulphuryl chloride	D	D	D	X	X	X
Tall oil	A	A	A	.	.	.
Tallow	A	A	A	.	.	.
Tannic acid (<10%)	A	A	D	X	.	.
Tarraric acid	A	B	D	X	.	.
Tetrachloroethane	C	C	C	.	.	.
Tetrachloroethylene	C	C	C	.	.	.
Tetraethylene glycol	B	B	B	.	.	.
Tetrahydrofuran	C	C	C	.	.	.
Thionyl chloride	Metallic/PTFE			.	.	.
Tin salts excluding halides (Saturated)	A	B	D	.	.	.
Tin halides	A	D	D	Polypropylene		
Titanium tetrachloride	C	D	D	Polypropylene		
Toluene	C	C	C	.	.	.
Toluene diisocyanate	B	B	B	.	.	.
o-Tolidine	B	B	C	.	.	X
Transformer oil	B	B	B	.	.	.
Transmission oil	B	B	B	.	.	.
Tributylamine	B	B	B	.	.	.
Tributyl phosphate	B	B	B	.	.	.
Trichloroacetic acid (<10%)	A	B	D	Polypropylene		
Trichlorobenzene	C	C	C	.	.	.
Trichloroethane	C	C	C	.	.	.
Trichloroethylene	C	C	C	.	.	.
Trichloropropane	C	C	C	.	.	.
Tricresyl phosphate	B	B	B	.	.	.
Tridecanol	B	B	B	.	.	.
Triethanolamine	B	B	D	.	.	.
Triethylamine	B	B	D	.	.	.
Triethylnemzene	B	B	B	.	.	.
Triethylene glycol	A	A	A	.	.	.
Triethylene tetramine	B	B	D	.	.	.
Trisopropanilamine	B	B	D	.	.	.
Trimethyl acetic acid	A	A	D	.	.	.
Trimethylbenzene	B	B	B	.	.	.
Triocetyl phosphate	B	B	B	.	.	.
Tripropylene glycol	A	A	A	.	.	.
Tripropylene glycol monomethyl ether	C	C	C	.	.	.
Tritolyl phosphate	B	B	B	.	.	.
Trixylenyl phosphate	B	B	B	.	.	.
Turpentine	C	C	C	.	.	.
Urea aqueous	A	B	B	.	.	X
Urea/ammonium salt solns	A	B	B	.	.	X
Urea/ammonia solution	A	B	B	.	.	X
Valeraldehyde	C	C	C	.	.	.
Varsol	A	A	A	.	.	.
Vaseline	A	A	A	.	.	.
Vegetable oils	A	A	A	.	.	.
Vinegar	A	A	D	X	.	.
Vinyl acetate	B	B	C	.	.	.
Vinyl chloride	Gas Hose			.	.	.
Vinyl ethyl ether	C	C	C	.	.	.
Vinylidene chloride	C	C	C	.	.	.
Vinyl toluene	B	B	C	.	.	.
Water	A	A	A	.	.	.
White spirit	B	B	B	.	.	.
Wine	B	B	D	X	.	X
Xylene	C	C	C	.	.	.
Xylenols	B	B	B	.	.	.
Yeast aqueous	A	A	D	X	.	.
Zinc salts aqueous excluding halides	A	B	D	.	.	.
Zinc halides	A	D	D	Polypropylene		

Due allowance must be made when selecting a hose for extreme conditions which may apply during its use. It is not advisable to select a hose which would during use, be subjected simultaneously to pressures, temperatures and bending radii all at the limit of its capabilities. Any such application should first be discussed with our Technical Department. The Company reserves the right to alter the specifications without notice.

# THE INSPECTION, CLEANING, AND TESTING OF COMPOSITE HOSES



## INSPECTION

Worn or damaged hoses may be dangerous, therefore, hoses should be visually checked before each operation and given a more rigorous examination at least every 6 months. The inspection should pay attention to:

- dents or kinks
- displacement of inner and outer reinforcing wires from their normal pitch
- corrosion or abrasion of the outer wire
- displacement of end fittings or signs of leakage from the ends.
- other abnormal features including wear or damage to end fittings
- chemical attack, deterioration or physical damage to outer cover and carcass generally.

Hoses with any significant defects of the above type should be retired from service. Moderate abrasion of the outer covers acceptable if the reinforcing fabric below the cover is undamaged.



## CLEANING

Hoses should be cleaned after use and always before testing or prolonged storage. The most appropriate method will depend on the hose use and its location.

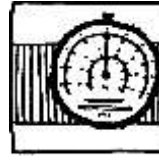
Flushing out is often sufficient, with fluids such as: clean water, hot water, detergents, common solvents at ambient temperatures, sea-water. If sea-water is used, it must be thoroughly drained afterwards to minimise risk of corrosion on Carbon steel end fittings or Galvanised steel interval wires.

It is essential that any strong acid conveyance is thoroughly drained prior to cleaning, to avoid exothermic reaction. It is also important to fully drain the hose afterwards to ensure puddles of cleaning fluid are not left within the assembly. This avoids any possibility of chemical reaction when the hose re-enters service.

Loose steam may be used but the hose must be open-ended and then its maximum working temperature must not be exceeded since damaged to the fabric or film may occur. Compressed air may be used, but again the hose must be open-ended.

During cleaning the hose must be electrically earthed to avoid static charge build-up, especially near flammable areas.

Pigging must not be used under any circumstances.



## TESTING

At least annually, hoses should be hydraulically tested as follows:

- Drain and thoroughly clean hose, and check end-to-end electrical continuity.
- Inspect visually. Hoses failing visual inspection should be not tested.
- Lay the hose straight out on supports or roller bed that allows free movement under pressure.
- Blank off ends and fill the hose completely with water. Ensure trapped air is released by tilting slightly.
- Pressure the assembly to 1.5 times the maximum rated working pressure and hold at this pressure for 10 minutes while examining for leaks. Also test electrical continuity between ends to ensure that its the same as initially checked.
- Release pressure and drain hose.
- On completion of the test, the hose should again be tested for electrical continuity.

It should be noted that with thermoplastic composite hoses, elongation under pressure can be high relative to rubber. This is a feature of composite hoses and unlike rubber hoses, it cannot be taken as an indication of failure or used to assess the condition of the hose reinforcements.



## ELECTRICAL CONTINUITY TESTS

To prevent the accumulation of static charge generated in use, all metal parts of the assembly have been electrically bonded during manufacturers. At intervals not exceeding 6 months, the following test should be carried out.

- Lay hose flat on the ground
- Check that it is electrically continuous end-to-end with approved electrical measuring device.

Hoses not having electrical continuity should be retire from service.



Certificate Number  
**9308**

Date of initial registration  
18 October 2012

Date of last issue  
15 October 2012

Date of expiry  
14 October 2015



**BM TRADA certify that the  
Quality Management System of**

**SHARDA INDUSTRIAL CORPORATION**  
41, Olympus, 4th Floor,  
179/181 Perin Nariman Street,  
Fort, Mumbai: 400 001  
Maharashtra,  
India

complies with the requirements of ISO 9001:2008

**Scope of Certification**  
Manufacture of flexible hose made from material Composite  
Polypropylene, Rubber, S.S, PTFE, PVC Material &  
all types of Hose Fittings and Hose assemblies.

REGISTRATION CERTIFICATE



Signed on behalf of BM TRADA Certification Ltd  
Haqim Davies, Group Director  
Oxford House, 200 Brook Lane, High Wycombe, Bucks HP14 4JH  
UK  
Further clarification regarding the scope of this certificate and certification  
or the methods of analysis through the ISO 9001  
at the above address or [www.bmtrada.com](http://www.bmtrada.com)

The certificate remains the property of BM TRADA Certification Ltd in  
this certificate and all copies or reproductions of the certificate shall be returned  
on demand if received by BM TRADA Certification Ltd

For further details the scope of certification shown also includes  
personnel activities that are performed by the holder of this  
system in accordance



The use of the accreditation mark indicates participation in a system of mutual recognition governed by the accreditation body number 712

**Indian Register of Shipping**

Part 1: 12-2012  
Date: 15.10.12  
Regn No: 11042110

**DET NORSKE VERITAS AS**  
INSPECTION RELEASE NOTE  
ONLY VALID IF PRODUCED IN ORIGINAL

11042110-11042110-0010

Item	Value	Unit	Remarks
1	1	1	1

Signature: [Signature]

**DET NORSKE VERITAS AS**  
INSPECTION RELEASE NOTE  
ONLY VALID IF PRODUCED IN ORIGINAL

11042110-11042110-0010

Signature: [Signature]



**CHEMICAL**



**HYDROCARBON**



**MARINE**



**CRYOGENIC**



# SHARDA

## INDUSTRIAL CORPORATION (SIC)



### ADMINISTRATIVE OFFICE :

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Tel.: (+91 22) 2264 2302 / 2264 2303 / 2269 4314 • Fax : (+91 22) 2262 5883

E-mail : [sales@composite-hose.com](mailto:sales@composite-hose.com) / [sic@hose.co.in](mailto:sic@hose.co.in) • Website : [www.composite-hose.com](http://www.composite-hose.com)

**Factory :** Plot No.16/17, Gut No. 329, Village Hamrapur, Manor Wada Road, Taluka - Wada, Dist : Palghar 421 303, Maharashtra (INDIA)

**Registered Office :** 42, Vidya Apartment, 4th Floor, Siri Lane, Loyalka Compound, Babulnath, Mumbai - 400 0 06.

## BUSINESS PARTNER

**ERIKS Pte Ltd**

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