

Composite hoses CHEM 700 for Chemicals



Our **CHEM** series are multi-layer thermoplastic hoses manufactured from polypropylene, polyethylene and polyester films and polypropylene fabrics with a weather-proof and abrasion resistant outer cover made of polyvinyl coated polyester fabric. Outer cover is also available in ELASTOTHANE®, a special PU-coated fabric. It is UV, ozone, sunlight and weathering resistance, offers superior temperature and abrasion characteristics. All the different layers are wrapped together and tensioned between internal and external wire spirals. This enables our product to meet the requirements of the petrol-chemical industry and those of the oil and gas industry. **CHEM** assemblies are fitted with an extensive range of couplings readily available, externally swaged with crimping ferrules.

CHEM assemblies are tested at 1 ½ times rated working pressures for safety and reliability, in accordance with EN ISO 1402 (BS 5842:1980 clause 6.4). The securing ferrule, at one end of the hose, is permanently marked by engraving, with manufacturer's name, nominal bore, the hose assembly serial number and the test date. The marking of hose assemblies is made in compliance with PED Directive (97/23/ CE). Full test certification can be supplied on request.

CHEM hoses can be supplied in the FIRETEC version with ADR self-extinguishing CL1 cover. Burst pressure indicated, is at ambient temperature when tested in accordance with EN ISO 1402 (BS 5173 section 102.10:1990).

Electrical conductivity is achieved by the two wires bonded to the end fittings. This helps to dissipate accumulated charge and to avoid static flash. The electric resistance of hose assemblies is less than 1 Ω/m as required by EN ISO 8031:2009 - 4.7.

Upon request it is possible to manufacture **CHEM** hoses in accordance to the Directive 94/9/EC "ATEX" with a special outer antistatic black cover and ground connection cable for explosive environment.



CHEM 700 HD and **CHEM SD** are chemically compatible and mechanically engineered to handle a wide range of hazardous chemicals. Extremely flexible, easy to handle and bend, all hoses are antistatic, 100% aromatic-resistant and can be used for suction or discharge. Vacuum rating is 0,9bar according to the EN ISO 7233 method B.

CHEM 700 HD - HEAVY DUTY

Applications: Heavy duty design for the transfer of a wide range of chemicals under suction or pressure. Used for ship to shore and ship to ship, dockside and in general for the most of the hard industrial and marine applications.

Design: High strength is provided by polypropylene and polyester films and fabrics, high density polyethylene films reinforcement, while high density UHMW PLT seamless tubular extruded film avoids any possible leak and guarantees a gas-tight composition. The design is completed by a weather- and ozone-resistant cover from polyvinyl coated PE-fabric. Available in 40 m coils from 3/4" to 8" diameter and up to 12" diameter in 25 m lengths.

CHEM 700 HD hose assemblies are certified by DNV as complying with the requirements of CE Directive 97/23 "PED" and are manufactured in accordance with the requirements of Par. 2:12 and 5:7 of the IMO Chemical Carrier Code.

CHEM 700 HD hoses are type approved by Lloyd's with Certificate n° 13/002.

Code	CHEM 700HD PZ	CHEM 700HD PX	CHEM 700HD XZ	CHEM 700HD XX
Applications	Heavy Duty Chemicals/Solvents liquid transfer			
Colour	Green			
Temperature	-40 +100°C			
Inner wire	PP coated steel	PP coated steel	st. steel	st. steel
Outer wire	galv. steel	st. steel	galv. steel	st. steel



Size		Max. W.P.		Safety Factor	Bend Radius EN ISO 1746		Weight kg / m	Maximum Length	
mm	Inch	bar	P.S.I.		mm	Inch		m	Feet
20	3/4"	15	200	5:1	75	3	0,63	40	132
25	1"	15	200	5:1	100	4	0,77	40	132
32	1 ¼"	15	200	5:1	125	5	1,05	40	132
40	1 ½"	15	200	5:1	140	5 ½	1,33	40	132
50	2"	15	200	5:1	180	7	2,04	40	132
65	2 ½"	15	200	5:1	220	8 ½	2,75	40	132
75/80	3"	15	200	5:1	180	11	3,15	40	132
100	4"	15	200	5:1	400	16	4,74	40	132
150	6"	15	200	5:1	575	23	10,00	40	132
200	8"	15	200	5:1	800	32	12,85	40	132
250	10"	15	200	5:1	1000	40	23,85	25	82
300	12"	15	200	5:1	1200	48	31,69	25	82



CHEM SD - STANDARD DUTY

Applications : General purpose standard duty hose suitable for the safe transfer of a wide variety of chemicals under suction or pressure. Commonly used for loading and unloading of road and rail tankers, storage tank and for in-plant applications. Suitable as flexible terminal hose for top loading arms. Available in 40 m coils from 1 ½" up to 8" diameter.

Design: High strength polypropylene films and fabrics, high density polyethylene film reinforcements, polyvinyl coated polyester fabric cover, weather and ozone resistant.

Code	CHEM SD PZ	CHEM SD PX	CHEM SD XZ	CHEM SD XX
Applications	Standard Duty Chemicals/Solvents liquid transfer			
Colour	Green			
Temperature	-30 + 80°C			
Inner wire	PP Coated Steel	PP Coated Steel	st. steel	st. steel
Outer wire	st. steel	st. steel	galv. steel	st. steel

SIZE		max. W.P.		Safety Factor	Bend Radius EN ISO 1746		Weight kg / m	maximum Length	
mm	Inch	bar	P.S.I.		mm	Inch		m	Feet
40	1 ½"	10	150	5:1	100	4	1,04	40	132
50	2"	10	150	5:1	150	6	1,56	40	132
65	2 ½"	10	150	5:1	200	8	1,87	40	132
75/80	3"	10	150	5:1	250	10	2,23	40	132
100	4"	10	150	5:1	300	12	3,62	40	132
150	6"	10	150	5:1	500	20	8,91	40	132
200	8"	10	150	5:1	740	29	11,16	40	132



VAPOR-CHEM LD - LIGHT DUTY

Applications: General purpose light duty hose is ideal for use for petrochemical vapour recovery systems in ship to shore, ship to ship, bottom loading and tank truck operations.

Complies with USCG marine Vapour control system 33CFR Part 154.810 !

All hoses are 100% antistatic - electrically conductive, meet the EN, CE, AS, U.S. Coast Guard requirements, NAHAD Guidelines, are Lloyds and DNV approved and ATEX certificate can be released on request.

Code	VAPORCHEM PZ	VAPORCHEM PX	VAPORCHEM XZ	VAPORCHEM XX
Applications	Light Duty Chemicals/Solvents Vapours			
Colour	Yellow			
Temperature	-30 + 80°C			
Inner wire	PP coated steel	PP coated steel	st. steel	st. steel
Outer wire	st. steel	st. steel	galv. Steel	st. steel

SIZE		max. W.P.		Safety Factor	Bend Radius EN ISO 1746		Weight kg / m	maximum Length	
mm	Inch	Bar	P.S.I.		mm	Inch		m	Feet
40	1 ½"	5	0,7	4:1	100	4	1,01	40	132
50	2"	5	0,7	4:1	150	6	1,33	40	132
65	2 ½"	5	0,7	4:1	200	8	1,85	40	132
75/80	3"	5	0,7	4:1	250	10	2,13	40	132
100	4"	5	0,7	4:1	300	12	2,97	40	132
150	6"	5	0,7	4:1	500	20	6,83	40	132
200	8"	5	0,7	4:1	740	29	9,91	40	132
250	10"	5	0,7	4:1	1000	40	14,79	25	82
300	12"	5	0,7	4:1	1200	48	19,96	25	82

Burst pressure indicated is at ambient temperature.

Maximum temperature rating can only be maintained when working within limits of working pressure.

We reserve the right to change specification without prior notice !

