

SPIR STAR[®]

Products for High Pressure



Type 2

Inner Core..... Polyoxymethylene (POM)
Pressure Support..... 2 layers of high tensile steel wire
Outer Cover..... Polyamide (PA)
Working Temperature*... -22°F to 140°F / -30°C to 60°C
Color..... Green, other colours upon request



Hose Type	Inside \varnothing		Outside \varnothing		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight		Nipple \varnothing ID		Sleeve \varnothing OD	
	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	lbs/ft	kg/m	inch	mm	inch	mm
3/2	0.134	3.4	0.270	6.9	14500	1000	36200	2500	2.36	60	0.048	0.072	0.07	1.9	0.35	8.9
4/2	0.160	4.0	0.320	8.0	17400	1200	43500	3000	3.00	75	0.074	0.110	0.10	2.5	0.40	10.1
5/2	0.197	5.0	0.370	9.4	15000	1040	37700	2600	3.75	95	0.084	0.125	0.12	3.0	0.50	12.9
6/2	0.250	6.3	0.460	11.5	14500	1000	36250	2500	4.33	110	0.118	0.175	0.16	4.0	0.55	13.9
8/2	0.320	8.1	0.530	13.3	11600	800	29000	2000	5.12	130	0.134	0.200	0.22	5.5	0.70	17.8
10/2	0.400	10.1	0.630	15.9	9570	660	24000	1650	6.29	160	0.195	0.290	0.26	6.5	0.82	20.8
13/2	0.510	12.9	0.760	19.3	9280	640	23200	1600	7.87	200	0.292	0.435	0.33	8.5	1.00	26.0
20/2	0.740	19.0	1.031	26.2	7540	520	18850	1300	9.45	240	0.504	0.750	0.51	13.0	1.35	34.5
25/2	0.939	23.6	1.220	31.0	6380	440	15950	1100	11.81	300	0.570	0.850	0.65	16.5	1.57	39.8

Type 2K

Inner Core..... Polyamide (PA)
Pressure Support..... 2 layers of high tensile steel wire
 1 braided layer of steel wire
Outer Cover..... Polyurethane (PUR)
Working Temperature*... -22°F to 140°F / -30°C to 60°C
Color..... Black, other colours upon request



Hose Type	Inside \varnothing		Outside \varnothing		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight		Nipple \varnothing ID		Sleeve \varnothing OD	
	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	lbs/ft	kg/m	inch	mm	inch	mm
4/2K	0.160	4.0	0.390	9.8	17400	1200	43500	3000	2.56	65	0.124	0.185	0.100	2.5	0.52	13.1
6/2K	0.250	6.2	0.510	12.9	16240	1120	40600	2800	3.74	95	0.202	0.300	0.157	4.0	0.63	16.2
8/2K	0.315	8.0	0.571	14.5	12760	880	31900	2200	4.30	110	0.235	0.350	0.220	5.5	0.71	18.1
10/2K	0.390	10.0	0.690	17.4	11600	800	29000	2000	4.92	125	0.316	0.470	0.260	6.5	0.86	21.9
13/2K	0.500	12.8	0.830	21.0	11600	800	29000	2000	5.60	150	0.464	0.690	0.330	8.5	1.08	27.4
20/2K	0.740	18.8	1.110	28.2	8120	560	20300	1400	8.66	220	0.706	1.050	0.52	13.0	1.47	37.4
25/2K	0.925	23.6	1.283	32.6	6960	480	17400	1200	11.02	280	0.806	1.20	0.65	16.5	1.64	41.6

Type 2WR

Inner Core..... Polyamide (PA)
Pressure Support..... 4 layers of high tensile steel wire
Outer Cover..... Polyurethane (PUR)
Working Temperature*... -22°F to 140°F / -30°C to 60°C
Color..... Metallic silver, other colours upon request



Hose Type	Inside \varnothing		Outside \varnothing		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight		Nipple \varnothing ID		Sleeve \varnothing OD	
	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	lbs/ft	kg/m	inch	mm	inch	mm
13/2WR	0.504	12.8	0.874	22.2	14500	1000	36260	2500	5.60	150	0.396	0.590	0.295	7.5	1.11	28.2

Type 2W

Inner Core	Polyamide (PA)
Pressure Support	4 layers of high tensile steel wire
Outer Cover	Polyurethane (PUR)
Working Temperature* ...	-22°F to 140°F / -30°C to 60°C
Color	Black, other colours upon request



Hose Type	Inside \varnothing		Outside \varnothing		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight		Nipple \varnothing ID		Sleeve \varnothing OD	
	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	lbs/ft	kg/m	inch	mm	inch	mm
4/2W	0.157	4.0	0.386	9.8	20300	1400	50750	3500	2.56	65	0.108	0.160	0.10	2.5	0.51	13.0
6/2W	0.236	6.0	0.460	11.7	18560	1280	46400	3200	3.74	95	0.155	0.230	0.16	4.0	0.60	15.4
8/2W	0.315	8.0	0.543	13.8	15000	1040	37500	2600	4.33	110	0.195	0.290	0.21	5.5	0.72	18.3
10/2W	0.390	10.0	0.660	16.8	13340	920	33350	2300	4.92	125	0.316	0.470	0.26	6.5	0.85	21.5
13/2W	0.504	12.8	0.819	20.8	14500	1000	36260	2500	5.60	150	0.396	0.590	0.33	8.5	1.03	26.3

Type 3

Inner Core	Polyoxymethylene (POM)
Pressure Support	2 layers of high tensile steel wire 1 braided layer of steel wire
Outer Cover	Polyamide (PA)
Working Temperature* ...	-22°F to 140°F / -30°C to 60°C
Color	Green, other colours upon request



Hose Type	Inside \varnothing		Outside \varnothing		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight		Nipple \varnothing ID		Sleeve \varnothing OD	
	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	lbs/ft	kg/m	inch	mm	inch	mm
5/3	0.20	5.0	0.420	10.7	16200	1120	40600	2800	3.74	95	0.146	0.218	0.12	3.0	0.51	12.9
6/3	0.25	6.3	0.490	12.5	15080	1040	37700	2600	4.33	110	0.188	0.280	0.16	4.0	0.56	14.1

Type 4

Inner Core	Polyoxymethylene (POM)
Pressure Support	4 layers of high tensile steel wire
Outer Cover	Polyamide (PA)
Working Temperature* ...	-22°F to 140°F / -30°C to 60°C
Color	Grey, other colours upon request



Hose Type	Inside \varnothing		Outside \varnothing		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight		Nipple \varnothing ID		Sleeve \varnothing OD	
	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	lbs/ft	kg/m	inch	mm	inch	mm
3/4	0.134	3.4	0.315	8.0	29000	2000	72500	5000	4.5	110	0.091	0.136	0.08	2.0	0.48	12.1
4/4	0.160	4.0	0.410	10.3	31320	2160	78300	5400	5.0	130	0.157	0.234	0.07	1.8	0.58	14.7
5/4	0.200	5.0	0.440	11.2	26100	1800	65250	4500	6.0	150	0.175	0.260	0.10	2.5	0.61	15.5
6/4	0.250	6.3	0.500	12.6	21750	1500	55100	3800	7.0	180	0.198	0.295	0.14	3.5	0.65	16.4
8/4	0.320	8.0	0.560	14.6	21750	1500	55100	3800	8.0	200	0.262	0.390	0.18	4.5	0.80	20.3
10/4	0.390	9.9	0.720	18.4	21750	1500	55100	3800	8.0	200	0.464	0.690	0.22	5.5	0.91	23.1
13/4	0.500	12.8	0.850	21.4	18560	1280	46400	3200	8.0	200	0.538	0.800	0.30	7.5	1.10	28.0
13/4H	0.500	12.8	0.866	22.0	20300	1400	50760	3500	8.0	200	0.590	0.880	0.29	7.5	1.13	28.8
16/4	0.630	16.0	0.984	25.0	14504	1000	36260	2500	9.8	250	10.12	0.941	0.41	10.5	1.30	33.0
20/4	0.740	18.8	1.130	28.8	15080	1040	37710	2600	9.8	250	0.907	1.350	0.52	13.0	1.45	36.9

Type 6

Inner Core	Polyoxymethylene (POM)
Pressure Support	6 layers of high tensile steel wire
Outer Cover	Polyamide
Working Temperature*...	-22°F to 140°F / -30°C to 60°C
Color	Blue, other colours upon request



Hose Type	Inside \varnothing		Outside \varnothing		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight		Nipple \varnothing ID		Sleeve \varnothing OD	
	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	lbs/ft	kg/m	inch	mm	inch	mm
3/6	0.118	3.0	0.354	9.0	40510	2800	101500	7000	5.9	150	0.149	0.222	0.07	1.8	0.602	15.3
4/6	0.160	4.0	0.450	11.5	40510	2800	101500	7000	7.0	175	0.245	0.365	0.07	1.8	0.63	16.1
5/6	0.200	5.0	0.530	13.4	38000	2620	95000	6550	8.0	200	0.300	0.450	0.10	2.5	0.70	17.8
8/6	0.320	8.0	0.650	16.4	30500	2100	76150	5250	10.0	250	0.430	0.640	0.18	4.5	0.87	22.1
10/6	0.390	9.8	0.800	20.4	27850	1920	69000	4800	10.0	250	0.672	1.000	0.22	5.5	1.64	26.5
13/6	0.500	12.8	0.920	23.4	24360	1680	60900	4200	12.0	300	0.779	1.160	0.29	7.5	1.19	30.4
20/6	0.740	18.8	1.236	31.4	20300	1400	50760	3500	13.8	350	1.290	1.920	0.52	13.0	1.68	42.6

Type 6H

Inner Core	Polyoxymethylene (POM)
Pressure Support	6 layers of high tensile steel wire
Outer Cover	Polyamide
Working Temperature*...	-22°F to 140°F / -30°C to 60°C
Color	Red, other colours upon request



Hose Type	Inside \varnothing		Outside \varnothing		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight		Nipple \varnothing ID		Sleeve \varnothing OD	
	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	lbs/ft	kg/m	inch	mm	inch	mm
5/6H	0.20	5.0	0.54	13.8	40600	2800	101527	7000	8.7	220	0.349	0.520	0.98	2.5	0.76	19.0
8/6H	0.32	8.0	0.70	17.8	36250	2500	90649	6250	10.24	260	0.558	0.830	0.18	4.5	0.98	24.8
13/6H	0.50	12.7	0.96	24.4	27850	1920	69625	4800	12.6	320	0.806	1.20	0.30	7.5	1.23	31.2

Type 8

Inner Core	Polyoxymethylene (POM)
Pressure Support	8 layers of high tensile steel wire
Outer Cover	Polyamide (PA)
Working Temperature*...	-22°F to 140°F / -30°C to 60°C
Color	Purple, other colours upon request



Hose Type	Inside \varnothing		Outside \varnothing		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight		Nipple \varnothing ID		Sleeve \varnothing OD	
	inch	mm	inch	mm	psi	bar	psi	bar	inch	mm	lbs/ft	kg/m	inch	mm	inch	mm
4/8	0.16	4.0	0.504	12.8	46400	3200	116000	8000	6.90	175	0.390	0.580	0.07	1.8	0.76	19.4
8/8H	0.315	8.0	0.772	19.6	40000	2760	100000	6900	11.80	300	0.753	1.120	0.18	4.5	1.08	27.5

* At Temperatures above 140° F / 60° C the 4 operating pressure must be reduced relative to the influence of other factors.

Chemical Resistance Table

PA = Super-Polyamide

Nylon 11/12

POM = Polyoxymethylene

+ = resistant

0 = relatively resistant

- = non-resistant

	PA		POM	
	20°	60°	20°	60°
Acetate Solvents	+	+	0	0
Acetic Acid 10%	0	+	+	+
Acetone	+	0	+	0
Acetylene	+	+	0	0
Alum	+	+	-	-
Aluminum Chloride	+	+	0	-
Aluminum Fluoride 20%	0	0	-	-
Aluminum Sulfate	+	+	-	-
Ammonia, Conc.	0	-	+	+
Ammonium Chloride	+	+	0	0
Ammonium Hydroxide	0	-	-	-
Ammonium Nitrate	+	+	-	-
Ammonium Phosphate	+	+	-	-
Ammonium Sulfate	+	+	-	-
Amyl Acetate	+	0	0	+
Amyl Alcohol	+	0	0	0
Aniline Dyes	+	+	0	0
Barium Chloride	+	+	0	0
Barium Hydroxide	+	+	0	0
Barium Sulfide	+	+	0	0
Benzene	+	0	+	0
Borax	+	+	+	+
Boric Acid	0	-	+	0
Brake Fluid	+	+	0	
Brine Solution	+	+	+	+
Bromine	-	-	-	-
Butane	+	+	+	+
Butanone	+	0	+	+
Butyl Alcohol	+	+	+	0
Butyl Acetate	+	+	+	0
Calcium Bisulfite	+	+	0	-
Calcium Chloride 10%	+	+	+	+
Calcium Hydroxide	+	+	0	-
Calcium Hypochlorite	0	0	0	-
Carbon Dioxide	+	+	+	+
Carbon Disulfide	0	-	+	-
Carbon Monoxide	+	+	+	0
Carbon Tetrachloride	0	-	+	0
Chlorine Gas	+	+	0	-
Chloroacetic Acid	0	-	-	-
Chloroacetone	+	0	0	0
Chlorobenzene	0	-	+	0
Chloroform	0	-	-	-
Chlorosulfonic Acid	0	-	-	-
Chromic Acid	-	-	-	-

	PA		POM	
	20°	60°	20°	60°
Copper Chloride	+	+	+	0
Copper Sulfate	+	+	+	0
Crude Oil	+	+	+	+
Dibutyl Phthalate	+	+	+	+
Diesel Oil, Light	+	+	+	0
Ether	0	-	+	-
Ethyl Alcohol	+	+	+	+
Ethyl Acetate	+	0	0	0
Ethyl Chloride	+	+	0	0
Ethylene Glycol	+	0	0	0
Essential Oils	+	0	+	+
Ferric Chloride 10%	+	+	0	-
Ferric Sulfate	+	+	0	-
Fluorosilicic Acid			-	-
Formaldehyde	+	0	-	-
Formic Acid 10%	+	0	-	-
Fuel Oil	+	+	+	0
Gas Oil	+	+	+	0
Gasoline	+	+	+	+
Glucose	+	+	0	
Glycerine/Glycerol	+	0	+	+
Glycol	+	0	+	+
Glysantine	+	+	+	+
Grease	+	+	+	+
Heptane	+	0	+	+
Hexane	+	0	+	+
Hydrofluoric Acid	-	-	-	-
Hydrogen	+	+	+	0
Hydrogen Peroxide 10%	+	0	+	-
Hydrogen Sulfide	+	0	-	-
Iron Salts Solutions	+	+	0	-
Kerosens	+	+	+	+
Lactic Acid 10%	+	+	+	0
Linseed Oil	+	+	+	+
Liquid Petroleum Gas	+	+	+	-
Lubricating Oils	+	+	+	+
Magnesium Chloride	+	+	+	+
Magnesium Hydroxide	+	0	0	-
Magnesium Sulfate	+	+	0	-
Methyl Alcohol	0	-	+	+
Methyl Chloride	+	-	0	-
Methyl Ethyl Ketone	+	0	0	0
Methyl Isopropyl Ketone	+	0	+	+
Mercuric Chloride	+	+	+	0
Mercury	+	+	+	0

	PA		POM	
	20°	60°	20°	60°
Mineral Oil	+	+	+	+
Naphtha	+	+	0	
Natural Gas	+	+	+	+
Nickel Chloride	+	+	-	-
Nickel Sulfate	+	+	+	+
Nitric Acid	-	-	-	-
Nitrobenzene	+	+	+	+
Oleic Acid	+	0	+	0
Oxalic Acid, Dilute	+	0	+	+
Oxygen	+	+	0	-
Perchloroethylene	+	+	+	+
Phenol	-	-	-	-
Potassium Chloride	+	+	0	+
Potassium Cyanide	+	+	0	-
Potassium Hydroxide	+	0	-	-
Potassium Sulfate	+	+	-	-
Propane	+	+	+	+
Seawater	+	+	+	+
Sulfur	+	+	+	+
Sulfur Chloride	-	-	+	0
Sulfur Dioxide	+	+	+	0
Sulfur Trioxide	-	-	+	0
Sulfuric Acid 10%	+	0	-	-
Sodium Bicarbonate 10%	+	+	+	+
Sodium Bisulfate	+	+	+	0
Sodium Carbonate	+	+	+	+
Sodium Chloride	+	+	0	
Sodium Cyanid	+	+	+	0
Sodium Hydroxide 20%	+	+	-	-
Sodium Hypochloride 5	0	0	0	-
Sodium Nitrate	+	+	+	+
Sodium Perborate	+	+	+	0
Sodium Silicate	+	+	+	+
Sodium Sulfate	+	+	+	0
Sodium Sulfide	+	+	+	0
Sodium Thiosulfate	+	0	+	0
Thiophene	+	0	0	0
Tin Chloride	+	+	+	0
Toluene	+	0	+	+
Trichloroethylene	0	-	+	0
Vanishes	+	+	0	
Water	+	+	+	+
Xylene	+	0	+	+
Zinc Chloride	+	+	+	0
Zinc Sulfate	+	+	+	0

SPiR STAR reserves the right to alter the specifications given in this publication in line with our policy of continuous improvement.

Note :

For chemicals not listed above, please enquire.

Distributor :

