

## Bioflex® The World's Leading PTFE Flexible Hose.

### Bioflex 是领先世界的 PTFE软管

Bioflex is a smoothbore, highly flexible, PTFE lined hose. Its design overcomes the disadvantages of conventional smoothbore and convoluted flexible hose designs, dramatically improving on many of their individual technical performance parameters.

Bioflex 是一种具有平滑内表面,非常柔软的PTFE软管。其设计克服了传统的平滑的内表面与螺旋型软管设计的各自不足之处,在许多个别的技术性能参数上都有了飞跃的提高。

#### Comparison with convoluted PTFE Hose

##### 与波纹状PTFE软管的比较

##### Hygienic Cleanability 清洁卫生

Vastly improved, due to smooth bore and hygienically polished surface finish. 有平滑的内表面并进行了为满足卫生要求的表面抛光处理,卫生和易清洁程度得到很好改善。

##### Fully Self Draining 液体完善排出

Unlike conventional convoluted hose, which pools fluid in the convolutions when at an angle.

与传统的螺旋型软管在凹凸处积聚液体情况不同,液体能全部顺畅流出。

##### Flow Rates 流量

More than 100 % higher.  
提高了100%以上。

##### Pressure Ratings 耐压性

More than 50 % higher.  
提高了50%以上。

##### Gas Permeation Resistance 耐气体的渗透性

More than 150 % higher.  
提高了150%以上。

##### Flex Life at Temperature and Pressure

在温度和压力下的寿命

More than 50 times the life, dependent upon test conditions.  
根据试验条件,高于50倍以上。

#### Comparison with Silicone Rubber Hose

##### 与硅胶软管的比较

##### Hygienic Cleanability 清洁卫生

Much better, due to highly polished inner surface finish. 由于通过高度抛光内表面处理,卫生和易清洁程度得到很好改善。

##### Chemical Resistance 耐化学物质性

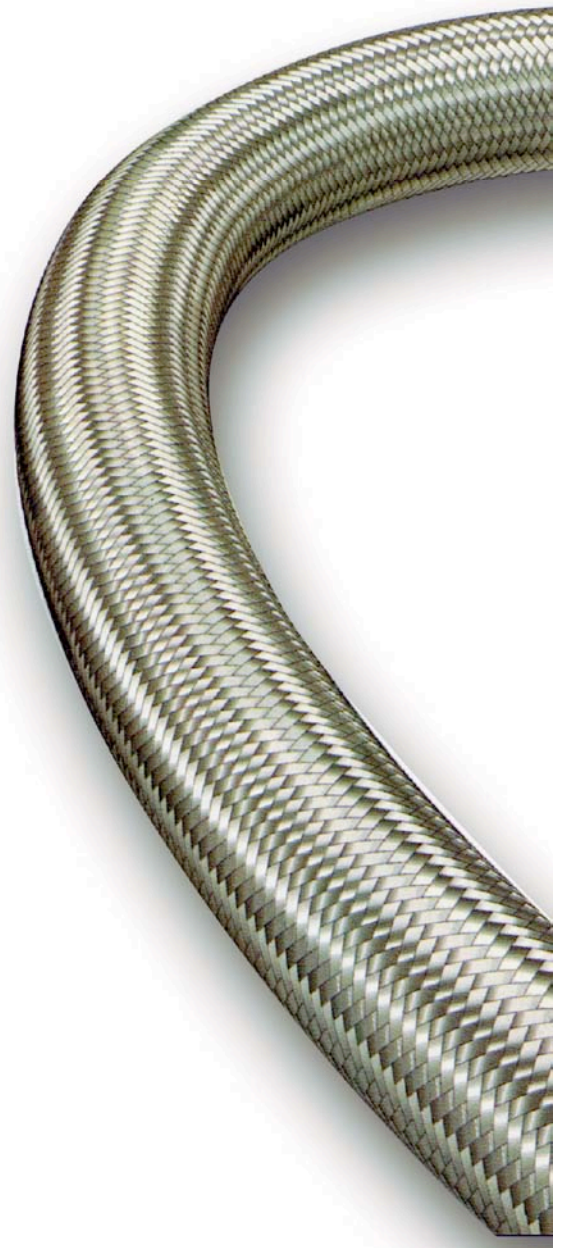
Considerably improved, particularly to strong oxidizing acids and bases. 耐化学物质性能,特别在强氧化酸和碱的物质上,有明显的提高。

##### Temperature & Pressure Ratings 耐温度和压力

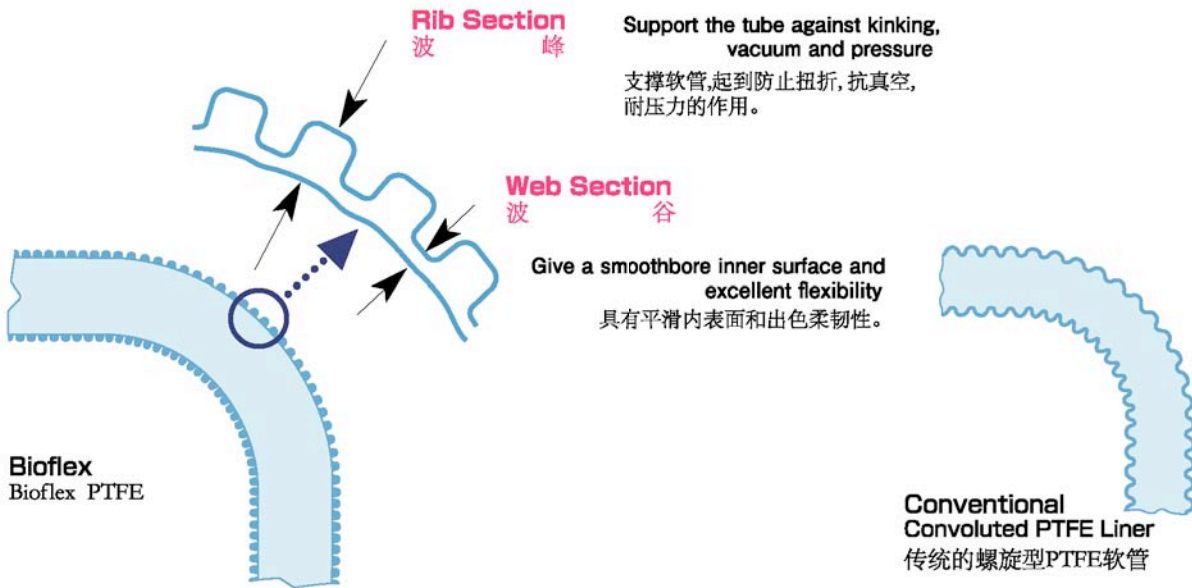
Much higher temperature and pressure capability.  
能承受较高的温度和压力。

##### Steam Resistance 耐蒸气

Permanently resistant to steam sterilizing (unlike silicone hose, which has a limited life). 永久承受蒸气杀菌。(与寿命有限的硅胶软管不一样)

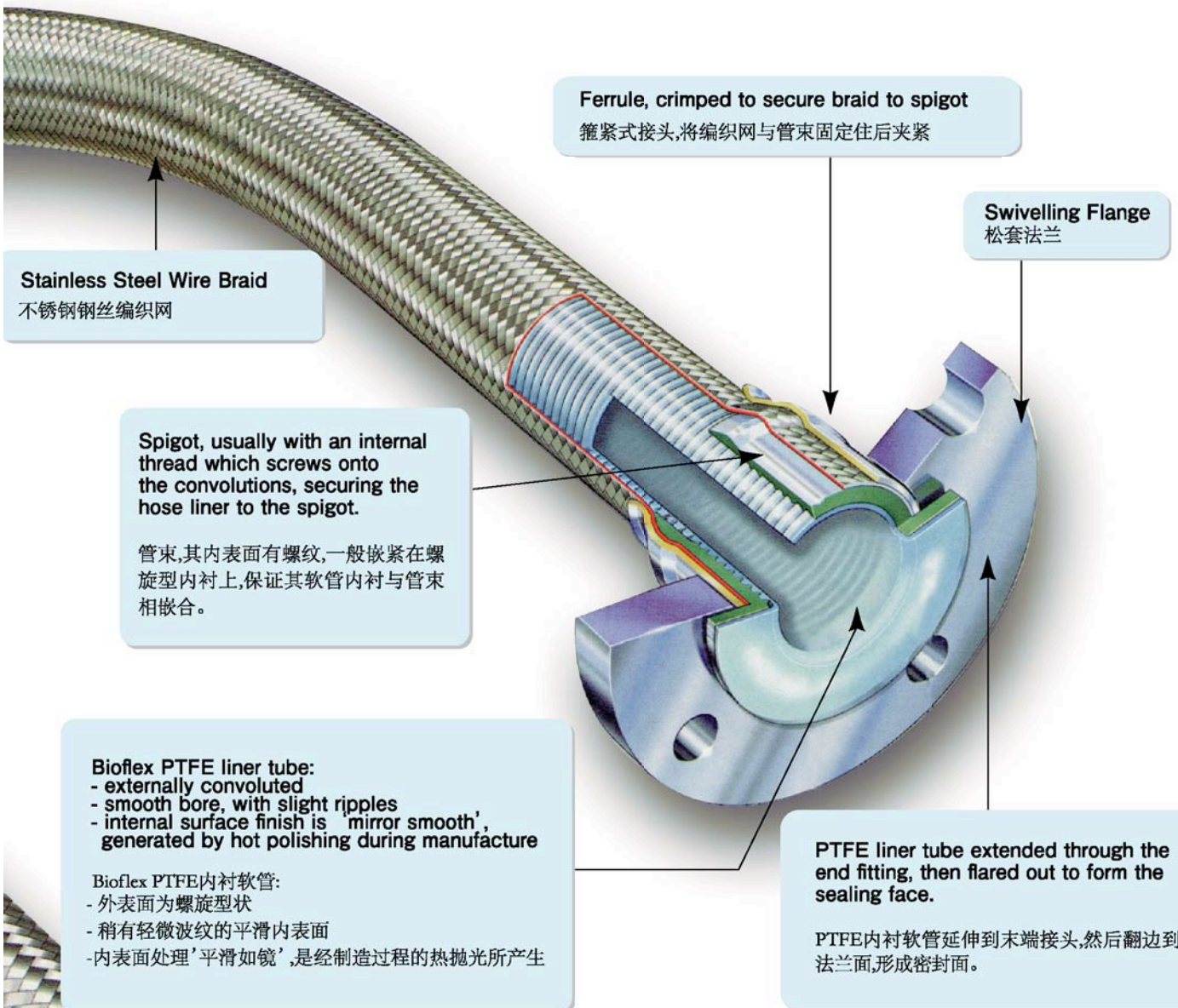


# Bioflex Hose Liner Bioflex 软管内衬



Support the tube against kinking, vacuum and pressure  
支撑软管,起到防止扭折,抗真空,耐压力的作用。

Give a smoothbore inner surface and excellent flexibility  
具有平滑内表面和出色柔韧性。





# PTFE 软管 Bioflex®

Bioflex GP 是一种‘普通用途’的软管，用于输送非高电阻的液体或气体。

Bioflex GP is the ‘General Purpose’ grade, for use in all applications where fluids or gases being conveyed are not highly electrically resistant.

Bioflex AS 软管用于输送有电阻的液体，如燃料、溶剂、或者氟利昂、或者如卤气、蒸气等纯净气体·干燥气体。使用Bioflex AS软管，可以起到防止由软管内部静电积聚所引起损害的作用。

Bioflex AS is suitable for use in applications where electrically resistive fluids, such as fuels, solvents or freon or pure, dry gases such as halogens or steam are being conveyed. The use of Bioflex AS prevents a damaging electrostatic charge build-up inside the hose.

## 尺寸范围和参数 Size Range and Specifications

软管口径 Nominal Hose Bore Size In	实质内径 Actual Bore Size mm	软管外径 O/D of Tube mm	网套种类 Braid Type	网套或橡胶管的外径 O/D of Braid or Rubber mm	最小弯曲半径 Minimum Bend Radius mm	最大使用压力 MWP of Hose MPa	最小破坏压力 Minimum Burst Pressure MPa	最大连续长度 Maximum Continuous Hose Length m	重量 Weight per Unit Length kg/m
3/8	9.5	11.75	TO	-	35	0.5	2	20	0.06
			SS	13	20	8.0	32	20	0.14
1/2	12.7	15.40	TO	-	60	0.5	2	20	0.15
			SS	16.5	38	7.0	28	20	0.29
			PB	18.0	38	3.5	14	20	0.22
			SS,RC/FP	21.0	60	7.0	28	20	0.39
			SI	21.0	60	7.0	28	10	0.39
			KYB	17.5	60	1.0	4	20	0.19
3/4	19.0	23.00	TO	-	75	0.5	2	20	0.20
			SS	24.4	50	6.0	24	20	0.40
			PB	25.8	50	3.0	12	20	0.28
			SS,RC/FP	29.0	75	6.0	24	20	0.55
			SI	29.0	75	6.0	24	10	0.55
			KYB	26.0	75	1.0	4	20	0.24
7/8	22.0	26.80	TO	-	92.5	0.4	1.6	20	0.28
			SS	28.4	60	5.5	22	20	0.58
			PB	30.2	60	2.75	11	20	0.38
			SS,RC/FP	33.0	92.5	5.5	22	20	0.74
			SI	33.0	92.5	5.5	22	10	0.74
			KYB	29.7	92.5	1.0	4	20	0.33
1	25.4	31.00	TO	-	110	0.4	1.6	20	0.36
			SS	32.3	70	5.0	20	20	0.63
			PB	34.7	70	2.5	10	20	0.47
			SS,RC/FP	36.9	110	5.0	20	20	0.92
			SI	36.9	110	5.0	20	5	0.92
			KYB	33.4	110	1.0	3	20	0.41
1 1/4	32.0	37.30	TO	-	140	0.3	1.2	20	0.45
			SS	38.4	100	4.5	18	20	0.85
			PB	40.1	100	2.3	9	20	0.72
			SS,RC/FP	43.2	140	4.5	18	20	1.15
			SI	43.2	140	4.5	18	5	1.15
			KYB	39.7	140	0.6	2.4	20	0.53
1 3/8	34.9	40.50	TO	-	160	0.2	0.8	18	0.54
			SS	41.8	120	4.0	16	18	1.00
			PB	44.2	120	2.0	8	18	0.86
			SS,RC/FP	46.4	160	4.0	16	18	1.38
			SI	46.4	160	4.0	16	5	1.38
			KYB	42.9	160	0.6	2	18	0.68
1 1/2	38.0	45.00	TO	-	180	0.2	0.8	17	0.66
			SS	46.8	140	4.0	16	17	1.10
			PB	48.8	140	2.0	8	17	0.90
			SS,RC/FP	54.6	180	4.0	16	17	1.55
			SI	54.6	180	4.0	16	5	1.55
			KYB	47.7	180	0.6	2	17	0.78
1 7/8	47.6	54.60	TO	-	280	0.2	0.8	13	0.82
			SS	56.4	190	3.5	14	13	1.38
			PB	58.4	190	1.8	7.2	13	1.12
			SS,RC/FP	64.2	280	3.5	14	13	1.94
			SI	64.2	280	3.5	14	5	1.94
			KYB	57.3	280	0.6	1.6	13	0.97
2	50.8	59.10	TO	-	300	0.2	0.8	10	1.25
			SS	60.9	200	3.0	12	10	1.90
			PB	62.9	200	1.5	6	10	1.60
			SS,RC/FP	68.9	300	3.0	12	10	2.56
			SI	68.9	300	3.0	12	5	2.56
			KYB	61.7	300	0.6	1.2	10	1.42

GP: 普通用途内衬  
General Purpose Liner

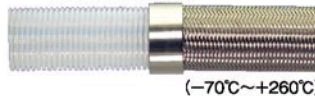


AS: 抗静电内衬  
Anti-Static Liner

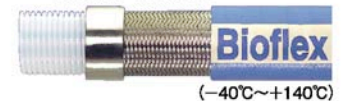
TO: 软管 (无编织网)  
Tube Only (no braid)



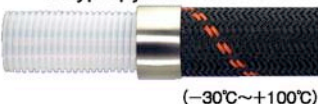
SS: 不锈钢钢丝编织网  
Stainless Steel



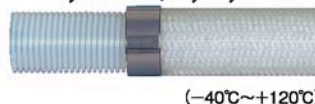
RC: 橡胶外套  
Rubber Covered



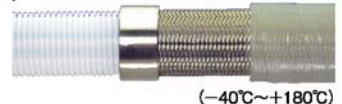
PB: 聚丙烯编织网  
Polypropylene Braid



KYB: Kynar 编织网  
Kynar Braid (Polyvinylidene Fluoride Monofilament)



SI: 硅胶外套  
Silicone Rubber Cover



上述温度是内部液体的最大作用温度。  
Mentioned above is Max. Operating Temperatures (internal fluid only).

# PTFE 软管 Hyperline

## Hyperline SB

Hyperline SB 是一种内表面平滑，壁厚薄适中，经济压为无缝PTFE软管，且软管外覆304级别不锈钢钢丝编织网。

Hyperline SB is a smoothbore, medium wall premium grade, seamless extruded PTFE Tube with a Grade304 Stainless Steel Wire Braid.



### 尺寸范围和参数 Size Range and Specifications

Hyperline SB, SS Only

软管口径 Hose Size	实质内径 Actual Bore Size	网套外径 O/D of Braid	最小弯曲半径 Minimum Bend Radius	最大使用压力 Maximum Working Pressure	破坏压力 Burst Pressure	重量 Weight/metre
in	mm	mm	mm	MPa	MPa	kg/m
1/4	6.7	9.3	60	19.3	77.3	0.110
3/8	10.0	12.7	80	17.2	69.1	0.166
1/2	13.6	16.3	130	12.3	49.4	0.210
3/4	19.8	19.5	180	8.5	34.1	0.327
1	26.4	30.2	230	7.6	30.5	0.524

## Hyperline V

Hyperline V 是为满足大多数普通产业而设计的螺旋波型PTFE内衬软管。

Hyperline V is Convoluted PTFE Hose designed for use in a wide variety of general purpose industrial applications.



### 尺寸范围和参数 Size Range and Specifications

Hyperline V, SS or V, AS, SS Only

软管口径 Hose Size	实质内径 Actual Bore Size	网套外径 O/D of Braid	最小弯曲半径 Minimum Bend Radius	最大使用压力 Maximum Working Pressure	破坏压力 Burst Pressure	重量 Weight/metre
in	mm	mm	mm	MPa	MPa	kg/m
3/8	6.30	13	20	7.60	22.9	0.13
1/2	9.50	17	25	5.60	17.0	0.20
3/4	16.0	24	50	4.60	13.8	0.34
1	22.2	29	63	3.25	9.8	0.47
1 1/4	28.2	36	70	2.75	8.3	0.63
1 1/2	35.0	47	115	2.20	6.6	0.90
2	47.0	61	130	1.83	5.5	1.25

## Hyperline FX

Hyperline FX 与其他PTFE软管产品不一样。PTFE 内衬软管是内表面平滑，外表面为螺旋波型的PTFE内衬软管，组装方便。该产品的特点是内表面平滑，流量大，有良好的柔软性，且具有螺旋波型软管特有的不折断性能。

Hyperline FX is unlike any other PTFE hose product currently available. The PTFE liner tube is smooth bore on the inside but convoluted on the outside, to combine the ease of assembly and high flow rates of a smooth bore hose with the flexibility and kink resistance of a convoluted hose in one product.



### 尺寸范围和参数 Size Range and Specifications

Hyperline FX, SS Only

软管口径 Hose Size	实质内径 Actual Bore Size	软管外径 O/D of Tube	最小弯曲半径 Minimum Bend Radius	最大使用压力 Maximum Working Pressure	破坏压力 Burst Pressure	网套外径 O/D of Braid
in	mm	mm	mm	MPa	MPa	mm
1/4	6.80	8.6	19	8.8	35	9.6
3/8	10.0	12.5	25	8.0	32	13.5
1/2	13.6	16.4	32	6.0	24	17.5
3/4	19.8	23.8	60	4.2	17	25.1
1	26.4	30.0	73	4.0	16	31.3



# PTFE 软管 Corroflon

Corroflon AS 是一种符合电阻介质用途的软管，主要用于输送如燃料、溶媒、纯净干燥气体或氟利昂等电阻介质的。该软管起到防止由软管内部静电积聚所带来损害的作用。

Corroflon AS is suitable for use in applications where electrically resistive media, such as fuels, solvents, pure dry gases or freons are being conveyed, in order to prevent a damaging electrostatic charge build-up inside the hose.

Corroflon SP 用于承受高温和高压，有更大的柔软性，不易折断和压裂，同时也用于耐完全真空 2 寸以上口径的软管。

Corroflon SP is for applications requiring a higher temperature/pressure rating, greater flexibility and improved kink and crush resistance. Also for applications requiring full vacuum resistance for hose sizes larger than 2".

SP: 特殊用途内衬  
Special Purpose Liner



AS: 抗静电内衬  
Anti-Static Liner

## 尺寸范围和参数 Size Range and Specifications

软管口径 Nominal Hose Bore Size in	实质内径 Actual Bore Size mm	软管外径 O/D of Tube mm	网套种类 Braid Type	网套或橡胶管的外径 O/D of Braid or Rubber mm	最小弯曲半径 Minimum Bend Radius mm	最大使用压力 MWP of Hose MPa	最小破坏压力 Minimum Burst Pressure MPa	最大连续长度 Maximum Continuous Hose Length m	重量 Weight per Unit Length kg/m
1/2	11.2	16.00	TO	-	38	0.6	1.8	25	0.21
			SS	17.5	38	4.1	12.3	25	0.33
			PB	19.1	38	4.1	12.3	25	0.26
			SS,RC/FP	23.5	57	4.1	12.3	20	0.49
			RC,SI	23.5	57	4.1	12.3	10	0.49
			KYB	19.1	38	2.05	6.15	25	0.23
3/4	15.7	21.40	TO	-	51	0.525	1.575	25	0.29
			SS	23.1	51	3.5	10.5	25	0.45
			PB	26.0	51	3.5	10.5	25	0.36
			SS,RC/FP	29.6	76	3.5	10.5	20	0.56
			RC,SI	29.6	76	3.5	10.5	10	0.56
			KYB	26.0	51	1.75	5.25	25	0.31
1	21.5	29.40	TO	-	70	0.465	1.395	40	0.45
			SS	31.7	70	3.1	9.3	40	0.70
			PB	34.0	70	3.1	9.3	40	0.56
			SS,RC/FP	36.6	105	3.1	9.3	20	0.98
			RC,SI	36.6	105	3.1	9.3	10	0.98
			KYB	34.0	70	1.55	4.65	40	0.49
1 1/4	27.5	37.00	TO	-	82	0.405	1.215	22	0.53
			SS	38.4	82	2.7	8.1	22	0.82
			PB	43.6	82	2.7	8.1	22	0.66
			SS,RC/FP	42.8	123	2.7	8.1	20	1.12
			RC,SI	42.8	123	2.7	8.1	10	1.12
			KYB	43.6	82	1.35	4.05	22	0.57
1 1/2	32.0	42.70	TO	-	100	0.345	1.035	20	0.97
			SS	44.6	100	2.3	6.9	20	1.50
			PB	48.6	100	2.3	6.9	20	1.20
			SS,RC/FP	55.8	150	2.3	6.9	20	1.90
			RC,SI	55.8	150	2.3	6.9	10	1.90
			KYB	48.6	100	1.15	3.45	20	1.05
2	43.0	56.50	TO	-	140	0.3	0.9	18	1.36
			SS	59.0	140	2.0	6.0	18	2.10
			PB	62.0	140	2.0	6.0	18	1.68
			SS,RC/FP	68.0	210	2.0	6.0	18	2.72
			RC,SI	68.0	210	2.0	6.0	10	2.72
			KYB	62.0	140	1.0	3.0	18	1.47
2 1/2	54.0	71.00	TO	-	178	0.24	0.72	13	1.68
			SS	73.0	178	1.6	4.8	13	2.58
			PB	77.0	178	1.6	4.8	13	2.06
			SS,RC/FP	79.0	267	1.6	4.8	13	3.10
			RC,SI	79.0	267	1.6	4.8	10	3.10
			KYB	77.0	178	0.8	2.4	13	1.81
3	64.0	83.60	TO	-	230	0.21	0.63	10	2.14
			SS	86.0	230	1.4	4.2	10	3.29
			PB	90.0	230	1.4	4.2	10	2.63
			SS,RC/FP	95.0	345	1.4	4.2	10	3.95
			RC,SI	95.0	345	1.4	4.2	10	3.95
			KYB	90.0	230	0.7	2.1	10	2.30
4	98.0	123.30	TO	-	300	0.15	0.45	10	3.46
			SS	125.0	300	1.0	3.0	10	5.33
			PB	128.0	300	1.0	3.0	10	4.26
			SS,RC/FP	131.0	450	1.0	3.0	10	6.40
			RC,SI	131.0	450	1.0	3.0	3	6.40
			KYB	-	-	-	-	-	-
6	130.0	161.20	TO	-	600	0.075	0.225	5	6.50
			SS	170.0	600	0.5	1.5	5	10.00
			PB	173.0	600	0.5	1.5	5	8.00
			SS,RC/FP	176.0	900	0.5	1.5	5	12.00
			RC,SI	176.0	900	0.5	1.5	3	12.00
			KYB	-	-	-	-	-	-

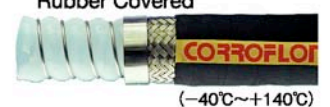
TO: 软管 (无编织网)  
Tube Only (no braid)



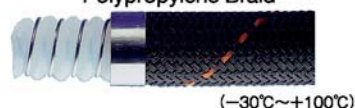
SS: 不锈钢丝编织网  
Stainless Steel



RC: 橡胶外套  
Rubber Covered



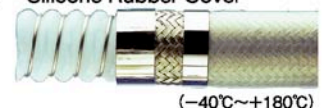
PB: 聚丙烯编织网  
Polypropylene Braid



KYB: Kynar 编织网  
Kynar Braid (Polyvinylidene Fluoride Monofilament)



SI: 硅胶外套  
Silicone Rubber Cover



上述温度是内部液体的最大作用温度。  
Mentioned above is Max. Operating Temperatures (internal fluid only).

# PTFE 软管 Corroline

Corroline 具有光滑的内面和螺旋状的外面，保持了强度和柔软性。由于强化不锈钢螺旋钢丝和不锈钢编织网，防止扭曲及折断，提高了耐压性及抗真空的能力。软管的外部保护是EPDM橡胶外套加上编织网，为了保持外表面清洁，外表面光滑加工。

Corroline is smooth bore inside but convoluted outside to generate excellent flexibility. A stainless helical wire and stainless steel wire braid reinforcement add to the kink resistance, crush resistance and the resistance of the hose to both pressure and vacuum. Outer cover of abrasion resistant, black antistatic EPDM rubber is extruded on to the braid, with a super-smooth surface finish to aid external cleaning.



## 尺寸范围和参数 Size Range and Specifications

软管口径 Hose Size	实质内径 Actual Bore Size	软管外径 O/D of Tube	最小弯曲半径 Minimum Bend Radius	最大使用压力 Maximum Working Pressure	破坏压力 Burst Pressure	重量 Weight Per Unit Length	最大连续长度 Max. Continuous length
in	mm	mm	mm	MPa	MPa	kg / m	m
1/2	13.5	21.4	60	4.5	20.6	0.377	18
3/4	19.8	28.1	65	4.3	17.3	0.583	18
1	26.1	36.7	100	4.1	17.0	0.909	18
1-1/2	38.8	51.7	170	3.8	15.8	1.698	17
2	51.5	65.7	210	2.8	12.3	2.355	13

# PTFE 软管 Pharmaline and Pharmalex

Pharmaline是一种很清洁的柔软性也高的软管制品，适合于制药及生物技术。口径3/4以上Pharmaline的波谷部卷有不锈钢螺旋钢丝，用于强化软管。不锈钢网套上有白色的白金加硫硅胶橡胶外部保护，外表面平滑，容易洗涤。Pharmalex 是比Pharmaline 重量更轻，是用于低压。

Pharmaline hose is an improved high purity and flexibility hose product which is suitable for Pharma and Biotech applications. For sizes 3/4" and above, a SS helical wire is wound in to the convolutions to further reinforce the hose design. An outer cover of Platinum Cured Silicone rubber is extruded on to a SS wire braid, with a super-smooth surface finish to aid external cleaning. Pharmalex hose was designed to provide a lightweight alternative version of Pharmaline hose, for light duty, low pressure applications.



## 尺寸范围和参数 Size Range and Specifications

### PHARMALINE GP AND AS

软管口径 Hose Bore Size	实质内径 Actual Hose Bore Size	外部保护外径 O/D of Cover	最小弯曲半径 Minimum Bend Radius	最大使用压力 Maximum Working Pressure	破坏压力 Burst Pressure	重量 Weight per Unit Length	最大连续长度 Maximum Continuous Length
in	mm	mm	mm	MPa	MPa	kg/m	m
1/4	6.4	6.8	19	13	52	0.17	18
3/8	9.5	9.5	25	10	40	0.22	18
1/2	12.7	12.7	38	7	28	0.37	18
3/4	19.0	19.0	63	6	24	0.65	18
1	25.4	25.4	100	5	20	0.88	18
1-1/4	32.0	32.5	130	4.4	18	1.3	18
1-1/2	38.0	38.8	170	3.8	15.8	1.698	17
2	50.0	51.5	210	2.8	12.3	2.355	13

## 尺寸范围和参数 Size Range and Specifications

### PHARMALEX GP AND AS

软管口径 Hose Size	实质内径 Hose Actual I/D	外部保护外径 O/D over Silicone Cover	最小弯曲半径 Minimum Bend Radius	最大使用压力 Maximum Working Pressure	破坏压力 Burst Pressure	重量 Weight per Unit Length	最大连续长度 Maximum Continuous Length
in	mm	mm	mm	MPa	MPa	kg/m	m
1/4	6.4	6.8	30	0.75	3	0.09	18
3/8	9.5	9.5	38	0.60	2.4	0.14	18
1/2	12.7	12.7	63	0.58	2.3	0.21	18
3/4	19.0	19.0	100	0.43	1.7	0.32	18
1	25.4	25.4	150	0.35	1.4	0.49	18