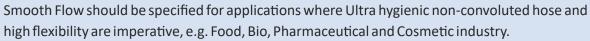




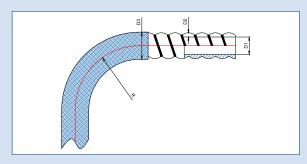


Smooth bore flexible PTFE hose with stainless steel helix and high tensile stainless steel braid

Ultra hygienic non-convoluted PTFE (polytetrafluorethylene) liner with stainless steel helix and a AISI 304 high tensile, stainless steel braid. The hose has exceptionally good vacuum and kink resistance properties for extreme performance.







Size	D1	D2	D3	R	WP	BP	Weight
3126	min.	min.	min.	mm	Bar 2	20° C	gr/m
1/2"	11.5	1.5	15.8	38	50	250	290
3/4"	20.00	1.5	26.70	50	60	290	430
1"	22.80	1.5	29.80	70	40	210	653
11/4"	30.50	1.5	37.50	85	45	210	750
11/2"	36.50	2	46.50	100	40	175	800
2"	48.50	2	58.30	140	25	135	950

TEMP.-70°C + 260°C

Smooth bore flexible PTFE hose with stainless steel helix and polypropylene braid.

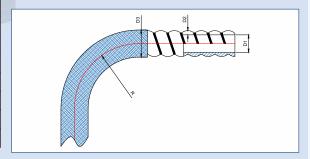
Ultra hygienic non-convoluted PTFE (polytetrafluoroethylene) liner with stainless steel helix and a polypropylene braid. The hose has exceptionally good vacuum- and kink resistance properties for extreme performance.

Smooth Flow® should be specified for applications where Ultra hygienic non-convoluted hose and high flexibility are imperative, e.g. Food, Bio Pharmaceutical and Cosmetic industry.



Size	D1	D2	D3	R	WP	BP	Weight
3126	min.	min.	min.	mm	Bar 2	20° C	gr/m
1/2"	11.5	1.5	21.6	38	10	40	232
3/4"	20.00	1.5	30.60	50	10	40	344
1"	22.80	1.5	33.60	70	10	40	522
11/4"	30.50	1.5	41.30	85	10	40	600
11/2"	36.50	2	49.70	100	10	40	640
2"	48.50	2	61.90	140	10	40	760

 $TEMP.-70^{\circ}C + 90^{\circ}C$

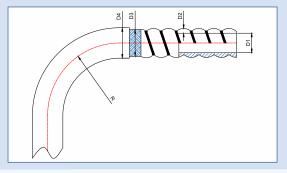


Smooth bore flexible PTFE hose with stainless steel helix and EPDM vulcanized high tensile stainless steel braid. Standard wall.

Ultra hygienic non-convoluted PTFE (polytetrafluoroethylene) liner with stainless steel helix and a AISI 304 high tensile, stainless steel braid. The hose has exceptionally good vacuum- and kink resistance properties for extreme performance.

Smooth Flow® should be specified for applications where Ultra hygienic non-convoluted hose and high flexibility are imperative. The EPDM vulcanized stainless steel braid ensures a high flexibility and easy clean ability. Making it ideal for Food, Bio, Pharmaceutical and Cosmetic industry.





Ciro	D1	D2	D	3	R	WP	BP	Lmax	Weight
Size	average	min.	min.	max	mm	Bar 2	0° C	m	gr/m
1/2"	11.5	1.25	20.8	22.8	60	50	250	0	400
5/8"	15.5	1.25	25.5	27.5	65	50	250	0	640
3/4"	18.5	1	28.6	30.6	80	60	290	0	900
1"	22.8	1	32.7	34.7	120	40	210	0	1000
11/4"	30.5	1.5	41.8	43.8	155	45	210	0	1500
11/2"	36.5	1.5	48.1	50.1	200	40	175	0	1750
2"	48.5	1.65	60.2	62.2	250	25	135	0	2650

Smooth bore flexible PTFE hose with stainless steel helix with Silicone vulcanized high tensile stainless steel braid. Standard wall.

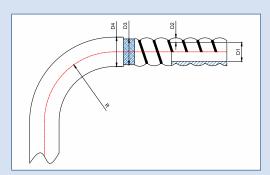
Ultra hygienic non-convoluted PTFE (polytetrafluorethylene) liner with stainless steel helix with an outer cover of vulcanized Silicone high tensile stainless steel braid, which ensures a high flexibility and easy clean ability. The hose has exceptionally good vacuum- and kink resistance properties for extreme performance.

Smooth Flow® should be specified for applications where Ultra hygienic non-convoluted hose and high flexibility are imperative. The Silicone vulcanized stainless steel braid ensures a high flexibility and easy clean ability. Making it ideal for Food, Bio, Pharmaceutical and Cosmetic industry.



End Connection :- are also available such as TC, Flange, Camlock, SMS, DIN, etc

Size	D1	D2			R	WP	BP	Lmax	Weight
3126	average	min.	min. max		mm	Bar 2	0° C	m	gr/m
1/2"	11.5	1.25	20.8	22.8	60	50	250	0	400
5/8"	15.5	1.25	25.5	27.5	65	50	250	0	640
3/4"	18.5	1	28.6	30.6	80	60	290	0	900
1"	22.8	1	32.7	34.7	120	40	210	0	1000
11/4"	30.5	1.5	41.8	43.8	155	45	210	0	1500
11/2"	36.5	1.5	48.1	50.1	200	40	175	0	1750
2"	48.5	1.65	60.2	62.2	250	25	135	0	2650



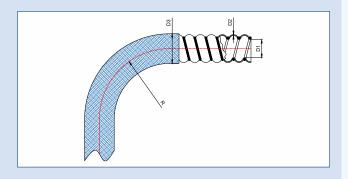
Convo Flow Convoluted PTFE Hose

Convoluted flexible PTFE hose with vacuum wire and stainless steel braid - medium wall.

A helically convoluted PTFE (Polytetrafluorethylene) suction/pressure hose, medium wall, with external vacuum wire and high tensile stainless steel braid. The hose has very good vacuum and kink resistance.

Hose fittings with PTFE tail Hose fittings with Hydraulic tail Industrial fittings with PTFE lining.

Convo Flow®- M/W1/B1 should be specified for steam applications or when high vacuum hose applications are required. Generally excellent mechanical strength.





			D2	D3		R	WP	BP	Vaccum	Lmax	Weight
Size	min.	max	min.	min.	max	mm	Bar 20	0° C	mbar20°C	m	gr/m
1/4"	5.5	9.9	0.52	9.9	11.5	25	35	170	774	10	150
3/8"	8.5	10.5	0.62	13.2	14.7	25	35	170	774	10	203
1/2"	11.6	16.9	0.82	12.9	14.4	25	60	300	947	10	220
5/8"	15.1	16.4	0.88	16.2	17.5	35	55	270	947	10	320
3/4"	19.5	20.5	1.00	28.6	31.4	55	60	290	947	10	540
1"	24.5	25.5	1.10	34.2	38.2	85	40	210	947	10	890
11/4"	31.5	32.5	1.15	41.9	46.1	100	40	210	947	10	1180
11/2"	36.5	37.5	1.45	47.2	49.9	120	35	175	947	10	1710
13/4"	44.5	45.5	1.45	55.8	61.4	135	25	135	947	10	2450
2"	49.5	50.5	1.50	60.5	66.7	165	25	135	947	10	2610
21/2"	62.5	63.5	1.60	80.9	89.1	230	16	80	947	10	3440
3"	73.5	74.5	1.60	90.4	99.6	260	14	65	947	10	4710
4"	94.5	99.5	1.82	121.1	127.5	300	10	40	947	10	5550
6"	150	154	2.5	179.0	189	520	6	24	554	10	6750

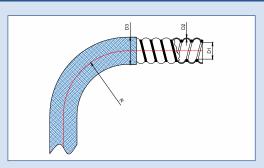
TEMP.-70°C + 260°C

Convoluted flexible PTFE hose with vacuum wire and polypropylene braid - medium wall.

A helically convoluted PTFE (Polytetrafluorethylene) suction/pressure hose, medium wall, with external vacuum wire with and high tensile polypropylene braid. The hose has very good vacuum and kink resistance.

Hose fittings with PTFE tail Hose fittings with Hydraulic tail Industrial fittings with PTFE lining.

Convo Flow®- M/W1/B1 should be specified for steam applications or when high vacuum hose applications are required. Generally excellent mechanical strength.





Size	D	1	D2	D3		R	WP	BP	Vaccum	Lmax	Weight
3126	min.	max	min.	min.	max	mm	nm Bar 20° C r		mbar20°C	m	gr/m
1/2"	11.6	13.6	0.82	21.4	23.4	50	10	40	887	10	210
5/8"	15.1	16.4	0.88	26.3	28.2	65	10	40	887	10	400
3/4"	19.5	20.5	1.00	31.1	33.9	55	10	40	887	10	490
1"	24.5	25.5	1.10	36.7	40.7	85	10	40	887	10	810
11/4"	31.5	32.5	1.15	44.4	48.6	100	10	40	887	10	1070
11/2"	36.5	37.5	1.45	49.7	52.4	120	10	40	887	10	1310
13/4"	44.5	45.5	1.45	58.3	63.9	135	10	40	887	10	1850
2"	49.5	50.5	1.50	62.5	69.2	165	10	40	887	10	2050
21/2"	62.5	63.5	1.60	83.4	91.6	230	7	28	887	10	3440
3"	73.5	74.5	1.60	92.9	102.2	260	6	24	887	10	5710

TEMP.-70°C + 90°C

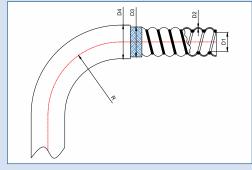
Convoluted PTFE hose with vacuum wire and EPDM vulcanized high tensile stainless steel braid - medium wall.

A helically convoluted PTFE (Polytetrafluorethylene) suction/pressure hose, medium wall, with stainless steel braid external vacuum wire with EPDM vulcanized high tensile. The hose has very good vacuum and kink resistance.

Hose fittings with PTFE tail Hose fittings with Hydraulic tail Industrial fittings with PTFE lining.

Convo Flow®- M/W1/B1/EP should be specified for steam applications or when high vacuum hose applications are required. Generally excellent mechanical strength.

EPDM vulcanized stainless steel braid ensures a high flexibility and easy clean ability. Making it ideal for Food, Bio, and Cosmetic industry.





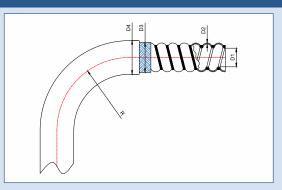
Size	D	1	D2	D3		R	WP	BP	Vaccum	Lmax	Weight
Size	min.	max	min.	min.	max	mm	Bar 2	0° C	mbar20°C	m	gr/m
1/2"	11.6	16.9	0.82	19.9	26.9	25	60	300	947	10	220
5/8"	15.1	16.4	0.88	23.2	30.2	35	55	270	947	10	320
3/4"	19.5	20.5	1.00	35.6	42.6	55	60	290	947	10	540
1"	24.5	25.5	1.10	41.2	48.2	85	40	210	947	10	890
11/4"	31.5	32.5	1.15	48.9	55.9	100	40	210	947	10	1180
11/2"	36.5	37.5	1.45	54.2	61.2	120	35	175	947	10	1710
13/4"	44.5	45.5	1.45	62.8	69.8	135	25	135	947	10	2450
2"	49.5	50.5	1.50	67.5	74.5	165	25	135	947	10	2610

Convo Flow Convoluted PTFE Hose

Convoluted flexible PTFE hose with vacuum wire and Silicon vulcanized high tensile stainless steel braid - medium wall.

A helically convoluted PTFE (Polytetrafluorethylene) suction/pressure hose, medium wall, with external vacuum wire with stainless steel braid with silicon vulcanized high tensile. The hose has very good vacuum and kink resistance. Hose fittings with PTFE tail Hose fittings with Hydraulic tail Industrial fittings with

Convo Flow®-M/W1/B1/SI should be specified for steam applications or when high vacuum hose applications are required. Generally Excellent mechanical strength. Silicone vulcanized stainless steel braid ensures a high flexibility and easy cleanability. Making it ideal for Food, Bio, and Cosmetic industry. The Silicon cover is white, FDA compliant.



End Connection :- are also available such as TC, Flange, Camlock, SMS, DIN, etc



PTFE lining.

Size	D	1	D2	D3		R	WP	BP	Vaccum	Lmax	Weight
Size	min.	max	min.	min.	max	mm	Bar 2	0° C	mbar20°C	m	gr/m
1/2"	11.6	16.9	0.82	19.9	26.9	25	60	300	947	10	220
5/8"	15.1	16.4	0.88	23.2	30.2	35	55	270	947	10	320
3/4"	19.5	20.5	1.00	35.6	42.6	55	60	290	947	10	540
1"	24.5	25.5	1.10	41.2	48.2	85	40	210	947	10	890
11/4"	31.5	32.5	1.15	48.9	55.9	100	40	210	947	10	1180
11/2"	36.5	37.5	1.45	54.2	61.2	120	35	175	947	10	1710
13/4"	44.5	45.5	1.45	62.8	69.8	135	25	135	947	10	2450
2"	49.5	50.5	1.50	67.5	74.5	165	25	135	947	10	2610

KEY PROPERTIES: PTFE

- ➤ Virgin PTFE Wide temperature range of -70°C to +260°C.
- ➤ Antistatic PTFE Excellent insulation, dielectric properties.
- ➤ Extremely low coefficient of friction; non-stick.
- ➤ Chemically inert, with the exception of a small number of unusual substances and conditions, including
- ▶ liquid boiling sodium metal and fluorine gas at high pressure and temperature.
- PTFE is hydrophobic (will not absorb moisture).
- ➤ Excellent UV resistance.
- ➤ Unlimited shelf life.
- ➤ Excellent flex fatigue qualities, Exceeds all other hose rivals.
- ➤ PTFE conforms to FDA21 CFR 177.1550.
- ➤ Antistatic PTFE conforms to FDA 21 CFR 178.3297 and is non leaching.

CERTIFICATION: PTFE

- ➤ Virgin PTFE FDA 21 CFR 177.1550.
- ➤ Antistatic PTFE FDA 21 CFR 178.3297.
- ➤ Meets the requirments of US Pharmacopeia Class VI.
- ➤ BPSA / FDA leachables and extractables recommendations.
- ➤ 3- A Sanitary Standards.
- ➤ ATEX Group IIA, IIB and IIC area types '0, 1 and 2 (in accordance to 1999 / 92 / CE).
- ➤ The quality manegment of Xtraflex NV. has been certified according to NBN EN ISO-9001 : 2008.
- BPSA / FDA leachables and extractables recommendations.
- European Migration Directive 1935/2004

Chemical Virgin PFA Hose

Chemical Virgin PFA Hose

Virgin PFA (Perfluoralkoxy Polymer), light colour, fully fluorinated, mirror smooth. Absolute and long term resistance to heat, cracking under stress and bending. EPDM rubber {code 140BI}, light colour, smooth, food quality, abrasion, ozone and weather resistant, cloth finish.

High strength piles of synthetic cord and embedded steel helix wire.

From -50°C to +170°C depending on the fluids conveyed.

Multipurpose hose, specifically designed for conveying chemical, pharmaceutical, cosmetic and food industries, excellent solution for processing industries required atmost safety during transport of high purity products, suction and delivery hose



TECHNICAL SPECIFICATIONS

SIZE TOLERANCES: I.D.:ISO 1307 - Wall Thickness: DIN 7715 T4 S2 - Length: ISO 1307

Inner Diemeter mm	Outer Diemeter mm	Wall Thikness mm	Working Pressure BAR	Burst Pressure BAR	Min. Bending Radius mm	Vaccum BAR	Approx Weight kg/m	Max.Length m
13	25	6.0	10	40	60	-0.9	0.55	20
19	31	6.0	10	40	90	-0.9	0.72	20
25	37	6.0	10	40	140	-0.9	0.89	20
32	45	6.5	10	40	200	-0.9	1.20	20
38	51	6.5	10	40	250	-0.9	1.47	20
51	65.5	7.25	10	40	300	-0.9	2.08	20
63.5	79.5	8.0	10	40	380	-0.9	3.00	20
76	92	8.0	10	40	500	-0.9	3.48	20
100	116	8.0	10	40	550	-0.9	4.90	20

Antistatic Chemical PFA Hose

PFA (Perfluoroalkoxy Polymer), white colour, fully fluorinated, mirror-smooth. Odourless and tasteless.

High strength plies of synthetic cord and embedded steel helix wire.

Marble finish (UPE), black and white, patented, smooth, resistant to abrasion, ozone and ageing. Antistatic: Electrical resistance R < 106 Ω

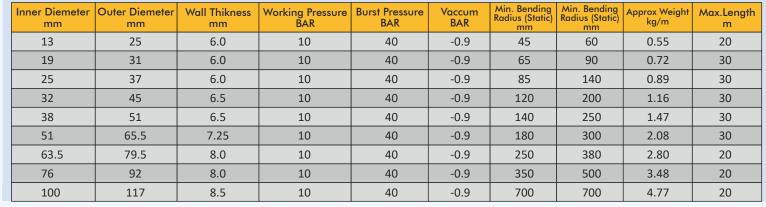
From -40°C to +130°C depending on the fluids conveyed and the application.

Multipurpose hose, specifically designed to convey pharmaceutical, cosmetic and chemical substances. Especially suitable for application in pharmaceutical

environments and production processes requiring the use of non-contaminating, inert materials.

End Connection :- are also available such as TC, Flange, Camlock, SMS, DIN, etc

TECHNICAL SPECIFICATIONS





Chemical Virgin PFA Hose

KEY PROPERTIES OF PFA HOSE/ ANTISTATIC PFA HOSE

- ➤ From -40°C to +130°C depending on the fluids conveyed and the application. In case of dynamic application: from +10°C to +40°C.
- ➤ High strength plies of synthetic cord and embedded steel helix wire.
- ➤ Marble finish (UPE), black and white, patented, smooth, resistant to abrasion, ozone and ageing.
- \rightarrow Antistatic: Electrical resistance R<106 Ω .
- ➤ EPDM rubber (code 140BI), light color, food quality, abrasion, ozone and weather resistant, cloth finish.
- ➤ Compliance acc. to FDA Standards.
- ➤ Factor of safety is four times working pressure
- ➤ The cover prevents any potential risk of contamination of the working environment.
- ➤ The fluorinated Inner liner is much more water proof and mirror smooth then any other fluorinated material available in the market.
- Suction and delivery hose

CERTIFICATE: PFA

- ➤ Compliance: USP Class VI, 3A, FDA Standards, D.M. 21/03/73 and following amendments, Regulation EU n. 10/2011, ISO 10993-4, -10, -11, non-cytotoxic according to ISO 10993-Part 5.
- **➤** E.P. 1450092.
- ➤ E.P. 1580475.
- ➤ U.S. Patent 7,389,799
- ➤ Hose in accordance with EC 1935/2004 and 2023/2006/EC (GMP). Our production cycle is free from animal derived ingredients, phthalates, adipates and materials subject to restrictions acc. to EC 1907/2006 (REACH). Non-plasticized inner tube.
- ➤ Hose in accordance with EC 1935/2004 and 2023/2006/EC (GMP). Our production cycle is free from animal derived ingredients, phthalates, adipates and materials subject to restrictions acc. to EC 1907/2006 (REACH).
- ➤ Bending cycles according to ASTM D 2176.

SILICONE HOSE

Smooth Bore Platinum Cured Silicon Hose With 4 Layer Polyester Yarn With Vacuum Wire

Platinum CuredSilicone rubber, translucent (code SILICONE-3362PT), Food and pharmaceutical quality, odourless and tasteless, smooth, glossy finish. High strength polyester plies.

Embedded stainless steel helix wire AISI 316

Silicone hose for suction and delivery of high products, foodstuff and fluids with alcohol content up to 96%. Reinforced version suitable for process application requiring a tight bending radius and a high vacuum resistance. Normally used in food, pharmaceutical and cosmetic industries and High suction capacity. From -60°C to +200°C.



TECHNICAL SPECIFICATIONS

Inner Diemeter mm	Outer Diemeter mm	Wall Thikness mm	Working Pressure BAR	Burst Pressure BAR	Min. Bending Radius mm	Vaccum BAR	Approx Weight kg/m	Max.Length m
10	22	6.0	10	30	50	-0.9	0.38	30
13	25	6.0	10	30	52	-0.9	0.45	30
16	29	6.5	10	30	60	-0.9	0.53	30
19	32	6.5	10	30	66	-0.9	0.62	30
25	38	6.5	10	30	86	-0.9	0.78	30
32	45	6.5	10	30	110	-0.9	0.92	30
38	52	7.0	10	30	130	-0.9	1.25	30
50	64	7.0	10	30	200	-0.9	1.62	30
65	79	7.0	8	24	250	-0.9	2.22	20
75	89	7.0	8	24	350	-0.9	2.70	20
100	114	7.0	7	21	500	-0.9	3.62	20

^(*) At a temperature of +100°C the W.P. decreases by 20%. Above technical data refer to application at room temperature (+20° C).

[➤] Other sizes are available on demand. Please contact our Sales Department.

Smooth Bore Platinum Cured Silicon Hose With 2 Layer Polyester Yarn.

Platinum Cured, Silicone rubber, translucent (code SILICONE-3362PT), food and pharmaceutical quality, odourless and tasteless, smooth, glossy finish.

Silicone hose for delivery of high purity products, foodstuff and fluids with alcohol content up to 96%. Normally used in food, pharmaceutical and cosmetic industries.

From -60°C to +200°C

TECHNICAL SPECIFICATIONS

SIZE TOLERANCES: I.D.:ISO 1307 - Wall Thickness: DIN 7715 T4 S2 - Length: ISO 1307

Inner Diemeter mm	Outer Diemeter mm	Wall Thikness mm	Working Pressure BAR	Burst Pressure BAR	Min. Bending Radius mm	Vaccum BAR	Approx Weight kg/m	Max.Length m
13	24	5.5	10	40	-	-	0.374	20
19	30	5.5	10	40	-	-	0.490	20
25	37	6.0	10	40	-	-	0.602	20
38	49	5.5	10	40	-	-	0.862	20
51	62	5.5	7	28	-	-	1.222	20

^(*) At a temperature of +100°C the W.P. decreases by 20%. Above technical data refer to application at room temperature € I+20°

Smooth Bore Platinum Cured Silicon Hose With Single Layer Polyester Yarn.

Platinum-cured silicone rubber, pharmaceutical and food quality, light colour, odourless and tasteless, mirror smooth. Plies of synthetic cord.

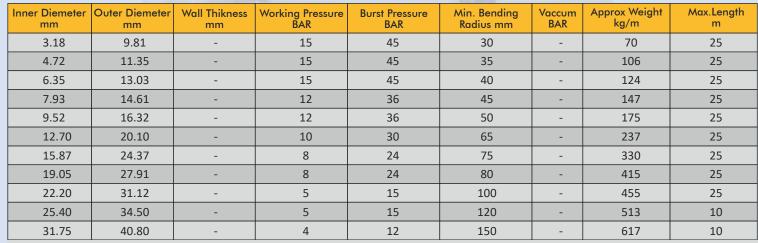
Platinum-cured silicone hose, designed for conveying high-purity products. It is normally used in the pharmaceutical, cosmetic, biotech and food industry. Delivery hose, not recommended for suction Hose in accordance with EC 1935/2004. Autoclavable.

From -60°C to +180°C depending on the fluids conveyed

End Connection :- are also available such as TC, Flange, Camlock, SMS, DIN, etc

TECHNICAL SPECIFICATIONS

SIZE TOLERANCES: I.D.:ISO 1307 - Wall Thickness: DIN 7715 T4 S2 - Length: ISO 1307



Chemical resistance acc. to Chemical Resistance Chart. Above technical data refer to application at room temperature (+20°C)

CERTIFICATION- FOR SILICON HOSE

FDA Regulations CFR 177.2600

- ➤ USP XXVI CLASS VI
- ➤ USDA Standards European Pharmacopoeia 3.1.9
- German GBVV XVA LIIA
- ➤ ISO 10993 Sections 4-11 non-cytotoxic according to ISO 10993-Part 5.





Other sizes are available upon request. Please contact our Sales Department.

Platinum Cured Silicon Tube/ Peristaltic Pump Tube

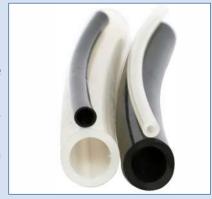
Platinum Cured Translucent Silicone Tubing - A very popular all-rounder, suitable for food contact, peristaltic pumps and hundreds of other applications.

Colored Tubing – A comprehensive range of regular sizes and popular colours.

Dairy Tubing – A comprehensive range of silicone tubing specifically tailored to meet the demands of the dairy industry.

Silicone rubber, translucent (code SILICONE-3362PT), food and pharmaceutical quality, odourless and tasteless, smooth, glossy finish.

This product is particularly suited to the food and pharmaceutical industries that require a soft, compressible material with excellent thermal stability from -50°C up to +200°C.



(mm) (mm) (mm) (mm) 0.50 ±0.10 0.50 ±0.10 1.50 0.50 ±0.10 0.80 ±0.10 2.10 0.80 ±0.10 0.80 ±0.10 2.40 1.00 ±0.10 0.50 ±0.10 2.00 1.00 ±0.10 1.00 ±0.10 3.00 1.50 ±0.10 0.50 ±0.10 3.00 1.50 ±0.10 0.50 ±0.10 3.00 1.50 ±0.10 0.50 ±0.10 3.00 1.50 ±0.10 0.50 ±0.10 3.00 1.50 ±0.10 0.80 ±0.10 3.50 1.60 ±0.10 1.60 ±0.10 3.20 1.60 ±0.15 1.00 ±0.10 4.00 2.00 ±0.15 1.00 ±0.10 4.00 2.00 ±0.15 1.00 ±0.10 5.00 3.00 ±0.15 1.50 ±0.10	ID	Tols	Wall	Tols	OD
0.50 ±0.10 0.80 ±0.10 2.10 0.80 ±0.10 0.80 ±0.10 2.40 1.00 ±0.10 0.50 ±0.10 2.00 1.00 ±0.10 1.00 ±0.10 3.00 1.50 ±0.10 0.50 ±0.10 2.50 1.50 ±0.10 0.75 ±0.10 3.00 1.50 ±0.10 1.00 ±0.10 3.50 1.60 ±0.10 1.60 ±0.10 3.20 1.60 ±0.10 1.60 ±0.10 4.80 2.00 ±0.15 1.00 ±0.10 4.00 2.00 ±0.15 2.00 ±0.15 6.00 2.40 ±0.15 0.80 ±0.10 4.00 3.00 ±0.15 1.00 ±0.10 5.00 3.00 ±0.15 1.50 ±0.10 6.00 3.20 ±0.15 1.50 ±0.10 4.80 3.20 ±0.15 1.60	(mm)	(mm)	(mm)	(mm)	(mm)
0.80 ±0.10 0.80 ±0.10 2.40 1.00 ±0.10 0.50 ±0.10 2.00 1.00 ±0.10 1.00 ±0.10 3.00 1.50 ±0.10 0.50 ±0.10 2.50 1.50 ±0.10 0.75 ±0.10 3.00 1.50 ±0.10 1.00 ±0.10 3.50 1.60 ±0.10 1.60 ±0.10 3.20 1.60 ±0.10 1.60 ±0.10 4.80 2.00 ±0.15 1.00 ±0.10 4.00 2.00 ±0.15 2.00 ±0.15 6.00 2.40 ±0.15 0.80 ±0.10 4.00 3.00 ±0.15 1.00 ±0.10 5.00 3.00 ±0.15 1.50 ±0.10 5.00 3.20 ±0.15 1.50 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 5.60 4.00 ±0.20 0.80	0.50	±0.10	0.50	±0.10	1.50
1.00 ±0.10 0.50 ±0.10 2.00 1.50 ±0.10 1.00 ±0.10 3.00 1.50 ±0.10 0.50 ±0.10 2.50 1.50 ±0.10 0.75 ±0.10 3.00 1.50 ±0.10 1.00 ±0.10 3.50 1.60 ±0.10 1.60 ±0.10 3.20 1.60 ±0.10 1.60 ±0.10 4.80 2.00 ±0.15 1.00 ±0.10 4.00 2.00 ±0.15 1.00 ±0.10 4.00 2.40 ±0.15 2.00 ±0.15 6.00 2.40 ±0.15 1.00 ±0.10 5.00 3.00 ±0.15 1.00 ±0.10 5.00 3.00 ±0.15 1.50 ±0.10 6.00 3.20 ±0.15 0.80 ±0.10 6.00 3.20 ±0.15 1.00 ±0.10 5.20 3.20 ±0.15 1.00	0.50	±0.10	0.80	±0.10	2.10
1.00 ±0.10 1.00 ±0.10 3.00 1.50 ±0.10 0.50 ±0.10 2.50 1.50 ±0.10 0.75 ±0.10 3.00 1.50 ±0.10 1.00 ±0.10 3.50 1.60 ±0.10 0.80 ±0.10 3.20 1.60 ±0.10 1.60 ±0.10 4.80 2.00 ±0.15 1.00 ±0.10 4.00 2.00 ±0.15 2.00 ±0.15 6.00 2.40 ±0.15 0.80 ±0.10 4.00 3.00 ±0.15 1.00 ±0.10 5.00 3.00 ±0.15 1.50 ±0.10 5.00 3.00 ±0.15 1.50 ±0.10 6.00 3.20 ±0.15 1.50 ±0.10 6.00 3.20 ±0.15 1.00 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 5.60 4.00 ±0.20 0.80	0.80	±0.10	0.80	±0.10	2.40
1.50 ±0.10 0.50 ±0.10 2.50 1.50 ±0.10 0.75 ±0.10 3.00 1.50 ±0.10 1.00 ±0.10 3.50 1.60 ±0.10 0.80 ±0.10 3.20 1.60 ±0.10 1.60 ±0.10 4.80 2.00 ±0.15 1.00 ±0.10 4.00 2.00 ±0.15 2.00 ±0.15 6.00 2.40 ±0.15 2.00 ±0.15 6.00 3.00 ±0.15 1.00 ±0.10 5.00 3.00 ±0.15 1.50 ±0.10 6.00 3.20 ±0.15 2.00 ±0.15 7.00 3.20 ±0.15 1.00 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 5.60 4.00 ±0.20 0.80 ±0.10 5.60 4.00 ±0.20 1.50	1.00	±0.10	0.50	±0.10	2.00
1.50 ±0.10 0.75 ±0.10 3.00 1.50 ±0.10 1.00 ±0.10 3.50 1.60 ±0.10 0.80 ±0.10 3.20 1.60 ±0.10 1.60 ±0.10 4.80 2.00 ±0.15 1.00 ±0.10 4.00 2.00 ±0.15 2.00 ±0.15 6.00 2.40 ±0.15 0.80 ±0.10 4.00 3.00 ±0.15 1.00 ±0.10 5.00 3.00 ±0.15 1.50 ±0.10 6.00 3.00 ±0.15 1.50 ±0.10 6.00 3.20 ±0.15 1.50 ±0.10 6.00 3.20 ±0.15 1.60 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 6.40 4.00 ±0.20 0.80 ±0.10 6.40 4.00 ±0.20 1.50 ±0.15 7.00 4.00 ±0.20 3.00	1.00	±0.10	1.00	±0.10	3.00
1.50 ±0.10 1.00 ±0.10 3.50 1.60 ±0.10 0.80 ±0.10 3.20 1.60 ±0.10 1.60 ±0.10 4.80 2.00 ±0.15 1.00 ±0.10 4.00 2.00 ±0.15 2.00 ±0.15 6.00 2.40 ±0.15 0.80 ±0.10 4.00 3.00 ±0.15 1.00 ±0.10 5.00 3.00 ±0.15 1.50 ±0.10 6.00 3.00 ±0.15 1.50 ±0.10 6.00 3.20 ±0.15 2.00 ±0.15 7.00 3.20 ±0.15 1.00 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 6.40 4.00 ±0.20 0.80 ±0.10 5.60 4.00 ±0.20 1.50 ±0.15 7.00 4.00 ±0.20 1.50 ±0.15 8.00 4.00 ±0.20 3.00	1.50	±0.10	0.50	±0.10	2.50
1.60 ±0.10 0.80 ±0.10 3.20 1.60 ±0.10 1.60 ±0.10 4.80 2.00 ±0.15 1.00 ±0.15 6.00 2.40 ±0.15 2.00 ±0.15 6.00 2.40 ±0.15 0.80 ±0.10 4.00 3.00 ±0.15 1.00 ±0.10 5.00 3.00 ±0.15 1.50 ±0.10 6.00 3.00 ±0.15 2.00 ±0.15 7.00 3.20 ±0.15 0.80 ±0.10 4.80 3.20 ±0.15 1.00 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 6.40 4.00 ±0.20 0.80 ±0.10 6.40 4.00 ±0.20 1.50 ±0.15 7.00 4.00 ±0.20 2.00 ±0.15 8.00 4.00 ±0.20 3.00	1.50	±0.10	0.75	±0.10	3.00
1.60 ±0.10 1.60 ±0.10 4.80 2.00 ±0.15 1.00 ±0.10 4.00 2.00 ±0.15 2.00 ±0.15 6.00 2.40 ±0.15 0.80 ±0.10 4.00 3.00 ±0.15 1.00 ±0.10 5.00 3.00 ±0.15 1.50 ±0.10 6.00 3.20 ±0.15 2.00 ±0.15 7.00 3.20 ±0.15 1.00 ±0.10 5.20 3.20 ±0.15 1.00 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 5.60 4.00 ±0.20 0.80 ±0.10 5.60 4.00 ±0.20 1.50 ±0.15 7.00 4.00 ±0.20 1.50 ±0.15 8.00 4.00 ±0.20 3.00 ±0.20 10.00 4.80 ±0.20 3.00	1.50	±0.10	1.00	±0.10	3.50
2.00 ±0.15 1.00 ±0.15 6.00 2.00 ±0.15 2.00 ±0.15 6.00 2.40 ±0.15 0.80 ±0.10 4.00 3.00 ±0.15 1.00 ±0.10 5.00 3.00 ±0.15 1.50 ±0.10 6.00 3.00 ±0.15 2.00 ±0.15 7.00 3.20 ±0.15 0.80 ±0.10 4.80 3.20 ±0.15 1.00 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 5.60 4.00 ±0.20 0.80 ±0.10 5.60 4.00 ±0.20 1.50 ±0.15 7.00 4.00 ±0.20 1.50 ±0.15 7.00 4.00 ±0.20 3.00 ±0.15 8.00 4.00 ±0.20 3.00 ±0.15 8.00 4.80 ±0.20 3.00	1.60	±0.10	0.80	±0.10	3.20
2.00 ±0.15 2.00 ±0.15 6.00 2.40 ±0.15 0.80 ±0.10 4.00 3.00 ±0.15 1.00 ±0.10 5.00 3.00 ±0.15 1.50 ±0.10 6.00 3.00 ±0.15 2.00 ±0.15 7.00 3.20 ±0.15 0.80 ±0.10 4.80 3.20 ±0.15 1.00 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 6.40 4.00 ±0.20 0.80 ±0.10 5.60 4.00 ±0.20 0.80 ±0.10 5.60 4.00 ±0.20 1.50 ±0.15 7.00 4.00 ±0.20 3.00 ±0.20 10.00 4.80 ±0.20 3.00 ±0.20 10.00 4.80 ±0.20 1.60 ±0.15 8.00 5.00 ±0.20 1.00	1.60	±0.10	1.60	<u>+</u> 0.10	4.80
2.40 ±0.15 0.80 ±0.10 4.00 3.00 ±0.15 1.00 ±0.10 5.00 3.00 ±0.15 1.50 ±0.10 6.00 3.00 ±0.15 2.00 ±0.15 7.00 3.20 ±0.15 0.80 ±0.10 4.80 3.20 ±0.15 1.00 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 6.40 4.00 ±0.20 0.80 ±0.10 6.40 4.00 ±0.15 1.00 ±0.10 6.00 4.00 ±0.20 1.50 ±0.15 7.00 4.00 ±0.20 1.50 ±0.15 8.00 4.00 ±0.20 3.00 ±0.20 10.00 4.80 ±0.20 3.00 ±0.20 10.00 4.80 ±0.20 1.60 ±0.15 8.00 5.00 ±0.20 1.00 ±0.15 8.00 5.00 ±0.20 1.50	2.00	±0.15	1.00	±0.10	4.00
3.00 ±0.15 1.00 ±0.10 5.00 3.00 ±0.15 1.50 ±0.10 6.00 3.00 ±0.15 2.00 ±0.15 7.00 3.20 ±0.15 0.80 ±0.10 4.80 3.20 ±0.15 1.00 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 6.40 4.00 ±0.20 0.80 ±0.10 5.60 4.00 ±0.20 1.50 ±0.15 7.00 4.00 ±0.20 1.50 ±0.15 7.00 4.00 ±0.20 2.00 ±0.15 8.00 4.00 ±0.20 3.00 ±0.20 10.00 4.80 ±0.20 3.00 ±0.20 10.00 4.80 ±0.20 1.60 ±0.15 8.00 5.00 ±0.20 1.50 ±0.15 8.00 5.00 ±0.20 1.50 ±0.15 9.00 5.00 ±0.20 2.50 ±0.15 9.00 5.00 ±0.20 2.50 ±0.15	2.00	±0.15	2.00	±0.15	6.00
3.00 ±0.15 1.50 ±0.10 6.00 3.00 ±0.15 2.00 ±0.15 7.00 3.20 ±0.15 0.80 ±0.10 4.80 3.20 ±0.15 1.00 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 6.40 4.00 ±0.20 0.80 ±0.10 5.60 4.00 ±0.15 1.00 ±0.10 6.00 4.00 ±0.20 1.50 ±0.15 7.00 4.00 ±0.20 2.00 ±0.15 8.00 4.00 ±0.20 3.00 ±0.20 10.00 4.80 ±0.20 3.00 ±0.20 10.00 4.80 ±0.20 1.60 ±0.15 8.00 4.80 ±0.20 2.40 ±0.15 9.60 5.00 ±0.20 1.50 ±0.15 8.00 5.00 ±0.20 1.50 ±0.15 9.00 5.00 ±0.20 2.50 ±0.20 10.00 6.00 ±0.20 1.50 ±0.15	2.40	±0.15	0.80	±0.10	4.00
3.00 ±0.15 2.00 ±0.15 7.00 3.20 ±0.15 0.80 ±0.10 4.80 3.20 ±0.15 1.00 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 6.40 4.00 ±0.20 0.80 ±0.10 5.60 4.00 ±0.15 1.00 ±0.10 6.00 4.00 ±0.20 1.50 ±0.15 7.00 4.00 ±0.20 2.00 ±0.15 8.00 4.00 ±0.20 3.00 ±0.20 10.00 4.80 ±0.20 3.00 ±0.20 10.00 4.80 ±0.20 1.60 ±0.15 8.00 4.80 ±0.20 2.40 ±0.15 9.60 5.00 ±0.20 1.50 ±0.15 9.00 5.00 ±0.20 1.50 ±0.15 9.00 5.00 ±0.20 2.50 ±0.20 10.00 6.00 ±0.20 1.50	3.00	±0.15	1.00	±0.10	5.00
3.20 ±0.15 0.80 ±0.10 4.80 3.20 ±0.15 1.00 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 6.40 4.00 ±0.20 0.80 ±0.10 5.60 4.00 ±0.15 1.00 ±0.10 6.00 4.00 ±0.20 1.50 ±0.15 7.00 4.00 ±0.20 2.00 ±0.15 8.00 4.00 ±0.20 3.00 ±0.20 10.00 4.80 ±0.20 0.80 ±0.10 6.40 4.80 ±0.20 1.60 ±0.15 8.00 4.80 ±0.20 2.40 ±0.15 9.60 5.00 ±0.20 1.00 ±0.15 9.00 5.00 ±0.20 1.50 ±0.15 9.00 5.00 ±0.20 2.50 ±0.20 10.00 6.00 ±0.20 1.50 ±0.15 9.00 6.00 ±0.20 1.50	3.00	±0.15	1.50	±0.10	6.00
3.20 ±0.15 1.00 ±0.10 5.20 3.20 ±0.15 1.60 ±0.10 6.40 4.00 ±0.20 0.80 ±0.10 5.60 4.00 ±0.15 1.00 ±0.10 6.00 4.00 ±0.20 1.50 ±0.15 7.00 4.00 ±0.20 2.00 ±0.15 8.00 4.00 ±0.20 3.00 ±0.20 10.00 4.80 ±0.20 0.80 ±0.10 6.40 4.80 ±0.20 1.60 ±0.15 8.00 4.80 ±0.20 2.40 ±0.15 9.60 5.00 ±0.20 1.50 ±0.15 8.00 5.00 ±0.20 1.50 ±0.15 8.00 5.00 ±0.20 2.00 ±0.15 9.00 5.00 ±0.20 2.50 ±0.20 10.00 6.00 ±0.20 1.50 ±0.15 9.00 6.00 ±0.20 1.50 ±0.15 9.00 6.00 ±0.20 2.00 ±0.15	3.00	±0.15	2.00	±0.15	7.00
3.20 ±0.15 1.60 ±0.10 6.40 4.00 ±0.20 0.80 ±0.10 5.60 4.00 ±0.15 1.00 ±0.10 6.00 4.00 ±0.20 1.50 ±0.15 7.00 4.00 ±0.20 2.00 ±0.15 8.00 4.00 ±0.20 3.00 ±0.20 10.00 4.80 ±0.20 0.80 ±0.10 6.40 4.80 ±0.20 1.60 ±0.15 8.00 4.80 ±0.20 2.40 ±0.15 9.60 5.00 ±0.20 1.00 ±0.10 7.00 5.00 ±0.20 1.50 ±0.15 8.00 5.00 ±0.20 2.00 ±0.15 9.00 5.00 ±0.20 2.50 ±0.20 10.00 6.00 ±0.20 1.50 ±0.15 9.00 6.00 ±0.20 1.50 ±0.15 9.00 6.00 ±0.20 2.00 ±0.15 9.00	3.20	±0.15	0.80	±0.10	4.80
4.00 ±0.20 0.80 ±0.10 5.60 4.00 ±0.15 1.00 ±0.10 6.00 4.00 ±0.20 1.50 ±0.15 7.00 4.00 ±0.20 2.00 ±0.15 8.00 4.00 ±0.20 3.00 ±0.20 10.00 4.80 ±0.20 0.80 ±0.10 6.40 4.80 ±0.20 1.60 ±0.15 8.00 4.80 ±0.20 2.40 ±0.15 9.60 5.00 ±0.20 1.50 ±0.10 7.00 5.00 ±0.20 1.50 ±0.15 8.00 5.00 ±0.20 2.00 ±0.15 9.00 5.00 ±0.20 2.50 ±0.20 10.00 6.00 ±0.20 1.50 ±0.15 9.00 6.00 ±0.20 1.50 ±0.15 9.00 6.00 ±0.20 2.00 ±0.15 10.00	3.20	±0.15	1.00	±0.10	5.20
4.00 ±0.15 1.00 ±0.10 6.00 4.00 ±0.20 1.50 ±0.15 7.00 4.00 ±0.20 2.00 ±0.15 8.00 4.00 ±0.20 3.00 ±0.20 10.00 4.80 ±0.20 0.80 ±0.10 6.40 4.80 ±0.20 1.60 ±0.15 8.00 4.80 ±0.20 2.40 ±0.15 9.60 5.00 ±0.20 1.00 ±0.10 7.00 5.00 ±0.20 1.50 ±0.15 8.00 5.00 ±0.20 2.00 ±0.15 9.00 5.00 ±0.20 2.50 ±0.20 10.00 6.00 ±0.20 1.50 ±0.15 9.00 6.00 ±0.20 1.50 ±0.15 9.00 6.00 ±0.20 2.00 ±0.15 10.00	3.20	±0.15	1.60	<u>±</u> 0.10	6.40
4.00 ±0.20 1.50 ±0.15 7.00 4.00 ±0.20 2.00 ±0.15 8.00 4.00 ±0.20 3.00 ±0.20 10.00 4.80 ±0.20 0.80 ±0.10 6.40 4.80 ±0.20 1.60 ±0.15 8.00 4.80 ±0.20 2.40 ±0.15 9.60 5.00 ±0.20 1.00 ±0.10 7.00 5.00 ±0.20 1.50 ±0.15 8.00 5.00 ±0.20 2.00 ±0.15 9.00 5.00 ±0.20 2.50 ±0.20 10.00 6.00 ±0.20 1.50 ±0.10 8.00 6.00 ±0.20 1.50 ±0.15 9.00 6.00 ±0.20 2.00 ±0.15 9.00	4.00	±0.20	0.80	±0.10	5.60
4.00 ±0.20 2.00 ±0.15 8.00 4.00 ±0.20 3.00 ±0.20 10.00 4.80 ±0.20 0.80 ±0.10 6.40 4.80 ±0.20 1.60 ±0.15 8.00 4.80 ±0.20 2.40 ±0.15 9.60 5.00 ±0.20 1.00 ±0.10 7.00 5.00 ±0.20 1.50 ±0.15 8.00 5.00 ±0.20 2.00 ±0.15 9.00 5.00 ±0.20 2.50 ±0.20 10.00 6.00 ±0.20 1.50 ±0.10 8.00 6.00 ±0.20 1.50 ±0.15 9.00 6.00 ±0.20 2.00 ±0.15 10.00	4.00	±0.15	1.00	±0.10	6.00
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	4.00	±0.20	1.50	±0.15	7.00
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	4.00	±0.20	2.00	±0.15	8.00
4.80 ±0.20 1.60 ±0.15 8.00 4.80 ±0.20 2.40 ±0.15 9.60 5.00 ±0.20 1.00 ±0.10 7.00 5.00 ±0.20 1.50 ±0.15 8.00 5.00 ±0.20 2.00 ±0.15 9.00 5.00 ±0.20 2.50 ±0.20 10.00 6.00 ±0.20 1.00 ±0.10 8.00 6.00 ±0.20 1.50 ±0.15 9.00 6.00 ±0.20 2.00 ±0.15 10.00	4.00	±0.20	3.00	±0.20	10.00
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	4.80	±0.20	0.80	±0.10	6.40
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	4.80	±0.20	1.60	±0.15	8.00
5.00 ±0.20 1.50 ±0.15 8.00 5.00 ±0.20 2.00 ±0.15 9.00 5.00 ±0.20 2.50 ±0.20 10.00 6.00 ±0.20 1.00 ±0.10 8.00 6.00 ±0.20 1.50 ±0.15 9.00 6.00 ±0.20 2.00 ±0.15 10.00	4.80	±0.20	2.40	±0.15	9.60
5.00 ±0.20 2.00 ±0.15 9.00 5.00 ±0.20 2.50 ±0.20 10.00 6.00 ±0.20 1.00 ±0.10 8.00 6.00 ±0.20 1.50 ±0.15 9.00 6.00 ±0.20 2.00 ±0.15 10.00	5.00	±0.20	1.00	±0.10	7.00
5.00 ±0.20 2.50 ±0.20 10.00 6.00 ±0.20 1.00 ±0.10 8.00 6.00 ±0.20 1.50 ±0.15 9.00 6.00 ±0.20 2.00 ±0.15 10.00	5.00	±0.20	1.50	±0.15	8.00
6.00 ±0.20 1.00 ±0.10 8.00 6.00 ±0.20 1.50 ±0.15 9.00 6.00 ±0.20 2.00 ±0.15 10.00	5.00	±0.20	2.00	±0.15	9.00
6.00 ± 0.20 1.50 ± 0.15 9.00 6.00 ± 0.20 2.00 ± 0.15 10.00	5.00	±0.20	2.50	±0.20	10.00
6.00 ±0.20 2.00 ±0.15 10.00	6.00	±0.20	1.00	±0.10	8.00
	6.00	±0.20	1.50	±0.15	9.00
6.00 +0.25 3.00 +0.20 12.00	6.00	± 0.20	2.00	±0.15	10.00
3.33 3.30 5.20 12.00	6.00	± 0.25	3.00	± 0.20	12.00

ID	Tols	Wall	Tols	OD
(mm)	(mm)	(mm)	(mm)	(mm)
6.30	±0.25	1.60	±0.15	9.50
6.30	±0.25	2.40	±0.15	11.10
6.30	±0.25	3.20	±0.20	12.70
6.40	±0.20	0.80	±0.10	8.00
7.00	±0.25	1.50	±0.15	10.00
7.00	<u>+</u> 0.25	2.00	±0.20	11.00
8.00	<u>+</u> 0.25	1.00	±0.10	10.00
8.00	<u>+</u> 0.25	1.60	<u>+</u> 0.15	11.20
8.00	<u>+</u> 0.25	2.00	±0.20	12.00
8.00	<u>+</u> 0.25	2.40	<u>+</u> 0.20	12.80
8.00	±0.25	2.50	±0.20	13.00
8.00	±0.25	3.00	±0.20	14.00
8.00	±0.25	4.00	±0.20	16.00
9.00	±0.25	2.00	±0.15	13.00
9.00	±0.25	3.00	±0.20	15.00
9.50	±0.25	3.20	±0.20	15.90
9.60	±0.25	1.60	±0.15	12.80
9.60	±0.25	2.40	±0.20	14.40
10.00	<u>+</u> 0.25	1.00	<u>+</u> 0.15	12.00
10.00	±0.25	2.00	±0.15	14.00
10.00	±0.25	2.50	±0.20	15.00
10.00	±0.25	3.00	±0.20	16.00
10.00	±0.25	4.00	±0.25	18.00
12.00	±0.25	2.00	±0.20	16.00
12.70	±0.25	3.20	±0.20	19.10
12.80	±0.25	1.60	±0.15	16.00
12.80	<u>+</u> 0.25	2.40	±0.20	17.60
13.00	<u>+</u> 0.40	3.00	<u>+</u> 0.20	19.00
15.00	<u>+</u> 0.50	3.00	<u>+</u> 0.20	21.00
16.00	<u>+</u> 0.50	2.40	<u>+</u> 0.20	20.80
16.00	<u>+</u> 0.50	3.00	<u>+</u> 0.20	22.00
19.00	<u>+</u> 0.70	3.20	<u>+</u> 0.20	25.40
20.00	<u>+</u> 0.70	3.00	<u>+</u> 0.20	26.00
22.00	± 0.80	3.00	± 0.20	28.00
25.00	± 0.80	3.00	± 0.20	31.00

SILICONE HOSE

KEY PROPERTIES- SILICON TUBE

Platinum Cured Silicon Tube.

- ➤ Temp. Range: -60°C and 200°C. (+260°C on request)
- Coloured covers available
- ➤ Smooth inner and outer surface to resist material adhesion
- Repeatedly autoclavable
- Suitable for pressure and vacuum
- ➤ Extruded and handmade liners available
- Suitable for CIP cleaning
- Odourless Tasteless Non-Toxic

CERTIFICATION

FDA Regulations CFR 177.2600

- ➤ Italy Gazette ufficiale 1973
- ➤ USP XXVI CLASS VI
- France Journal Officiel brochure 1227
- ➤ USDA Standards European Pharmacopoeia 3.1.9
- German GBVV XVA LIIA
- ➤ ISO 10993 Sections 5-6-10-11
- ➤ FDA-BfR

Food Grade Rubber Hose

Food Grade Rubber Hose

NBR rubber (code NAB90), light colour, food quality, odourless and tasteless, mirror-smooth, Plies of synthetic cord Embedded steel helix wire.

CR rubber, blue colour, abrasion and weather resistant, smooth, cloth finish. Temperature From -20°C to +90°C.

Multipurpose hose specifically designed for conveying pharmaceutical, cosmetic, chemical and food industries. Rubber hose specifically designed to convey milk, milk products and fatty liquid foodstuffs.

Normally used in dairies, edible oil mills and food processing industries. Suction and delivery hose.

TECHNICAL SPECIFICATIONS

Inner Diemeter mm	Outer Diemeter mm	Wall Thikness mm	Working Pressure BAR	Burst Pressure BAR	Vaccum BAR	Min. Bending Radius mm	Approx Weight kg/m	Max.Length m
19	31	6.0	10	30	-0.9	80	0.69	40
25	37	6.0	10	30	-0.9	120	0.85	40
32	44	6.0	10	30	-0.9	150	1.04	40
38	52	7.0	10	30	-0.9	200	1.56	40
40	54	7.0	10	30	-0.9	200	1.62	40
45	59	7.0	10	30	-0.9	225	1.78	40
50	64	7.0	10	30	-0.9	250	1.95	40
52	66	7.0	10	30	-0.9	280	2.10	40
60	76	8.0	10	30	-0.9	330	2.72	40
65	81	8.0	10	30	-0.9	360	2.93	40
70	86	8.0	10	30	-0.9	420	3.14	40
75	93	9.0	10	30	-0.9	450	3.82	40
80	98	9.0	10	30	-0.9	480	3.95	40
100	118	9.0	10	30	-0.9	600	5.20	40

Food Grade Rubber Hose

EPDM rubber, blue colour, smooth, abrasion and weather resistant, cloth finish. Resistant to traces of animal and vegetable fats. Plies of synthetic cord. temperature From -40°C to +164°C.

Multipurpose Hose specially designed to convey pharmaceutical, cosmetic and chemical substances. Food quality rubber hose, specifically designed for cleaning operations with saturated steam (up to ± 164 °C) and hot water wash down services.

Normally used in dairy industries, creameries and food processing facilities for safe

operations during cleaning processes with hot water and steam. Suitable for transfer of saturated steam only for discontinuous use.



TECHNICAL SPECIFICATIONS

SIZE TOLERANCES: I.D.:ISO 1307 - Wall Thickness: DIN 7715 T4 S2 - Length: ISO 1307

Inner Diemeter mm	Outer Diemeter mm	Wall Thikness mm	Working Pressure at +164°C BAR	Working Pressure at +95°C BAR	Vaccum BAR	Min. Bending Radius mm	Approx Weight kg/m	Max.Length m
10	20	5	6	20	-	75	0.27	40
13	23	5	6	20	-	100	0.32	40
16	28	6	6	20	-	120	0.48	40
19	31	6	6	20	-	160	0.54	40
25	39	7	6	20	-	200	0.82	40
32	46	7	6	20	-	260	1.04	40
38	54	8	6	20	-	300	1.40	40
50	67	8.5	6	20	-	380	1.76	40

Transparent Dust Suction Hose

Suction and delivery hose, specifically designed for conveying air mixed with powders. Technopolymer (code 3G26AU), see-through, odourless and tasteless, mirror-smooth. Abrasion loss: < 36 mm according to DIN 53516.

High strength plies of synthetic cord. Stainless steel helix wire AISI 302. Technopolymer (code 3G26AU), see-through, odourless and tasteless, smooth, glossy finish.

Resistant to abrasion and ozone. From -10°C to +85°C. Cleaning with water (up to +100°C without pressure) mixed with a normal mild cleaning detergent.



TECHNICAL SPECIFICATIONS

Inner Diemeter mm	Outer Diemeter mm	Wall Thikness mm	Working Pressure BAR	Burst Pressure BAR	Min. Bending Radius mm	Vaccum BAR	Approx Weight kg/m	Max.Length m
25	33	4.0	6	18	150	-0.9	0.38	20
38	46	4.0	6	18	230	-0.9	0.54	20
50	58.5	4.25	5	15	300	-0.9	0.98	20
63.5	72	4.25	4	12	400	-0.9	1.24	10
76	85	4.5	4	12	490	-0.8	1.63	10
100	112	6.0	3	9	700	-0.8	2.48	10

Food Grade Rubber Hose

Food hose of latest generation, specifically designed to meet the demanding requirements of the beer processing industry.

It is suitable for conveying high quality raw, pasteurized and organic beer, alcoholic beverages (alcohol content limit at room temperature: 96%), soft drinks and wine. It is also suitable for conveying fatty liquid foodstuffs.

UPE (Ultra High Molecular Weight Polyethylene), light colour, food grade, odourless and tasteless, mirror smooth. Plies of synthetic cord. CR rubber, red colour, resistant to abrasion, ozone and weather, smooth, cloth finish. From -30°C to +90°C.

End Connection :- are also available such as TC, Flange, Camlock, SMS, DIN, etc

TECHNICAL SPECIFICATIONS

SIZE TOLERANCES: I.D.:ISO 1307 - Wall Thickness: DIN 7715 T4 S2 - Length: ISO 1307



Inner Diemeter mm	Outer Diemeter mm	Wall Thikness mm	Working Pressure BAR	Burst Pressure BAR	Vaccum BAR	Min. Bending Radius mm	Approx Weight kg/m	Max.Length m
13	23	5	16	48	-0.6	80	0.37	40
19	29	5	16	48	-0.6	120	0.48	40
25	37	6	16	48	-0.6	150	0.74	40
32	48	8	16	48	-0.6	200	1.38	40
38	56	9	16	48	-0.6	240	1.85	40
40	60	10	16	48	-0.6	240	2.10	40
50	70	10	16	48	-0.6	300	2.75	40
51	71	10	16	48	-0.6	300	2.80	40
63.5	87.5	12	16	48	-0.5	400	3.90	40
65	89	12	16	48	-0.4	400	4.00	40
75	105	15	16	48	-0.4	450	5.70	40
76	106	15	16	48	-0.4	450	5.75	40
80	110	15	16	48	-0.4	500	5.90	40
100	130	15	16	48	-0.4	600	6.95	40
102	132	15	16	48	-0.4	600	7.00	40

OTHER SANITARY PRODUCTS



















Our product are precisely build to comply with different standard such as ASME, BPE, 3A, BS and SMS Size 1/4" to 6"

Follow us f in

Plot No. C-9, Office No. 310, 3rd floor, Globe Estate, M.I.D.C., Phase-1, Dombivli (East) – 421 203. Mumbai, Maharashtra, India. Office No.: 8657453269 | 8657453270

