SILFLEX

Silicone hose systems designed for precision and performance

DS012

Silicone hose with polyester reinforcement & water regulations approved white silicone lining

For more information or data, please visit www.silflex.com or contact us by phone: +44 (0) 1443 238 464 or email: hosesolutions@silflex.com

MADE IN BRITAIN®

General Use

Silflex Silicone hose with Polyester Reinforcement & Water Regulations Approved White Silicone Lining has been designed for carrying clean water and conforms to Water Regulations Advisory Scheme standards. It can however be used in many applications where the properties of silicone are preferable to those of other rubbers, or where a flexible joint is required between rigid pipes

Working Temperature Range: -50°C to +180°C.

Working Pressures: Dependant on hose construction and customer requirements.

Construction

Plies of silicone, reinforced with polyester fabric & lined with Water Regulations Approved White Silicone. The number of plies will vary depending on the working pressure, bore size, and required wall thickness. A galvanised spring steel wire helix may also be added for high or low-pressure applications, or where extra flexibility is required.

Material Specifications

Outer Silicone Compound

Colour	Various
Hardness (IHRD)	65 ± 5
Specific Gravity (g/cm^3)	1.18 ± 0.05
Tensile Strength (Mpa)	8.6
Elongation at Break (%)	308
Tear Strength (KN/m)	13

The above physical properties refer to a test sheet press cured for 5mins at 115°C, and post cured for 4 hrs @ 200°C. Tested to the relevant BS903 standard.

Fluid resistance figures can be supplied on request.

Inner Lining of Water Regulation Approved Silicone Rubber Compound

Colour	White
Hardness (IHRD)	70 ± 5
Specific Gravity (g/cm^3)	1.21 ± 0.05
Tensile Strength (Mpa)	8.8
Elongation at Break (%)	430
Tear Strength (KN/m)	24

Approve by the Water Regulations Advisory Scheme (WRAS), approval number 0412511.

Knitted Polyester Fabric

Description	Fine Mesh
Yarn Type	100% Polyester
Finish	Scour & set
Bursting Strength (Fabric) (7" Internal Dia. Ring)	33psi
Extensibility at Burst	60%
Thickness	0.022" (0.56mm)

Spring Steel Wire Helix (where applicable)

Constructed from galvanised spring steel wire (to BS5216 HS3) at a spacing of 2-3 tpi, and buried between the plies.

Certificates of Conformity

Certificates of conformity can be supplied with deliveries if required.

Burst and Working Pressure Guidelines for 3 & 4 Ply Polyester Reinforced Hoses

Bore Size	3 Ply Hoses				4 Ply Hoses			
	Burst Pressure		Recommended Max. Operating Pressure		Burst Pressure		Recommended Max. Operating Pressure	
mm	Bar	Psi	Bar	Psi	Bar	Psi	Bar	Psi
6.5	76.6	1126	19.2	282	86.1	1266	21.5	316
8	64.2	944	16.1	237	73.0	1073	18.3	269
9.5	55.4	814	13.9	204	63.6	935	15.9	234
11	48.9	719	12.2	179	56.6	832	14.2	209
12	45.4	667	11.3	166	52.8	776	13.2	194
12.7	42.4	623	10.6	156	49.6	729	12.4	182
15.8	35.5	522	8.9	131	42.0	617	10.5	154
19	30.6	450	7.7	113	36.7	539	9.2	135
20	29.3	431	7.3	107	35.2	517	8.8	129
22	27.0	397	6.8	100	32.6	479	8.2	121
25	24.2	356	6.1	90	29.5	434	7.4	109
28	22.0	323	5.5	81	26.9	395	6.7	98
30	20.7	304	5.2	76	25.5	375	6.4	94
32	19.6	288	4.9	72	24.2	356	6.1	90
35	18.1	266	4.5	66	22.6	332	5.7	84
38	16.9	248	4.2	62	21.1	310	5.3	78
41	15.8	232	4.0	59	19.9	293	5.0	74
44.5	14.6	215	3.7	54	18.5	272	4.6	68
48	13.8	203	3.5	51	17.5	257	4.4	65
51	13.1	193	3.3	49	16.7	245	4.2	62
54	12.5	184	3.1	46	16.0	235	4.0	59
57	12.0	176	3.0	44	15.3	225	3.8	56
60	11.4	168	2.9	43	14.7	216	3.7	54
63	11.0	162	2.8	41	14.1	207	3.5	51
65	10.7	157	2.7	40	13.8	203	3.5	51
68	10.3	151	2.6	38	13.3	196	3.3	49
70	10.0	147	2.5	37	13.0	191	3.3	49
76	9.3	137	2.3	34	12.2	179	3.1	46
80	8.9	131	2.2	32	11.7	172	2.9	43
83	8.7	128	2.2	32	11.4	168	2.9	43
89	8.2	121	2.1	31	10.7	157	2.7	40
102	7.3	107	1.8	26	9.6	141	2.4	35
114	6.6	97	1.7	25	8.8	129	2.2	32

127	6.0	88	1.5	22	8.1	119	2.0	29
152	5.2	76	1.3	19	7.0	103	1.8	26

All figures apply to shaped hoses and hoses up to 1m long. Please enquire for longer lengths. All figures are taken from Silflex Ltd test data. All data developed by burst profiling at standard conditions. Performance characteristics are dependent on the environment. Operating parameters will deviate in differing operating environments.
Maximum Operating pressures defined by a ratio of 4:1. This is only a guide pressure; each application should be assessed individually.