



Silicone hose systems designed
for precision and performance

DS017

Silgiene® lined silicone hose with polyester reinforcement for fluid/air transfer applications where minimal contamination is essential

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



General Use

The Silgiene® lined silicone hose has been specifically developed to minimise the risk of contamination of the fluid or air carried by the hose from trace level extractable materials found in conventional silicones e.g. Siloxanes, while still giving all of the service benefits expected from Samco/Silflex silicone hoses. So while it is suitable for use in a wide range of chemical fluid/gas transfer applications where the risk of contamination needs to be minimised it also meets the demands of applications ranging from motorsport and high-performance bikes & cars through bus, truck and rail industry requirements while also being suitable for use in static generator applications.

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

Working Pressures: Dependant on hose construction and customer requirements.

Construction

A liner of Silgiene® translucent silicone overlaid with plies of silicone reinforced with polyester fabric. The number of plies varying depending on working pressure bore size and required wall thickness. A galvanised spring steel wire helix can also be added, buried between the between the plies so that it is not exposed on either the inside or the outside of the hose, for high or negative pressure applications or where improved flexibility is required. Additionally, the hoses can be supplied with convoluted outers where required.

Typical physical properties

Flame Retardant Silicone Rubber Compound

SILGIENE® TRANSLUCENT LINER

Colour	:	Translucent
Hardness (IRHD)	:	60°
Specific Gravity	:	1.18g/cm ³
Tensile Strength	:	11.0MPa
Elongation @ Break	:	500%
Tear Strength	:	42N/mm

STANDARD SILICONE RUBBER (MID & OUTER PLYS).

Colour (Outer ply)	:	VARIOUS (BLUE AS STANDARD)
Hardness (IRHD)	:	60°
Specific Gravity	:	1.18g/cm ³
Tensile Strength	:	7.0MPa
Elongation & Break	:	300%
Tear Strength	:	13N/mm
BS903		Tested to the relevant element of

KNITTED POLYESTER FABRIC

Description	:	FINE MESH
Yarn type	:	100% POLYESTER

Finish	:	SCOUR & SET
Fabric Burst Strength (7" I/D Test Ring)	:	33Psi
Extension @ burst	:	60%
Thickness	:	0.022" (0.56mm)

SPRING STEEL WIRE HELIX (WHERE APPLICABLE)

Constructed from galvanised spring steel wire (to BS5216 HS3) or Stainless Steel wire (to BS2056) at a spacing of 2-3tpi, and buried between the plies.

Certificates of Conformity

Certificates of conformity can be supplied with deliveries if required.

Burst Pressure

See table below for typical burst test figure results; 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 may deviate in differing operating environments.

The Maximum Operating pressures have been defined by allowing a safe operating factor of 4:1. This is a guide figure only and each application should be assessed individually.

Burst Pressure

Bore Size	3 Ply Hoses				4 Ply Hoses			
	Burst Pressure		Recommended Max. Operating Pressure		Burst Pressure		Recommended Max. Operating Pressure	
	Bar	Psi	Bar	Psi	Bar	Psi	Bar	Psi
mm								
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
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
41	15.8	232	4.0	59	19.9	293	5.0	74



44.5	14.6	215	3.7	54
51	13.1	193	3.3	49
54	12.5	184	3.1	46
60	11.4	168	2.9	43
65	10.7	157	2.7	40
70	10.0	147	2.5	37
76	9.3	137	2.3	34
80	8.9	131	2.2	32
89	8.2	121	2.1	31
102	7.3	107	1.8	26
114	6.6	97	1.7	25
152	5.2	76	1.3	19

18.5	272	4.6	68
16.7	245	4.2	62
16.0	235	4.0	59
14.7	216	3.7	54
13.8	203	3.5	51
13.0	191	3.3	49
12.2	179	3.1	46
11.7	172	2.9	43
10.7	157	2.7	40
9.6	141	2.4	35
8.8	129	2.2	32
7.0	103	1.8	26

