

SILICONE TURBO HOSE WITH ARAMID REINFORCEMENT

**This Data Sheet Covers
the Following Hose Types:** TCH.

Silflex Limited

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General Use

Samco® Sport turbo hose has been specifically designed for the demanding requirements of the motorsport and fast road car tuning markets. It meets or exceeds the requirements of SAE J20 R1 Class A. It is primarily designed for use in turbocharger systems. It can however be used in many other applications where the properties of silicone are preferable to those of other rubbers, where a flexible joint is required between rigid pipe work, or where higher working temperatures compared to standard silicone/polyester are required.

Working Temperature Range: -50°C to +250°C. (-58°F to +482°F)

Working Pressures: Dependant on hose construction and customer requirements.

Construction

Plies of silicone, reinforced with Aramid fabric. 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

Materials Specifications

Silicone Rubber Compound

Colour	Various (R.I.O. as Standard)
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.

Knitted Aramid Fabric

Description	Fine Mesh
Yarn Type	100% Aramid
Finish	Scour & Set (with Resin)
Bursting Strength (Fabric) (7.98cm Dia. Ring)	258 Kpa
Weight	115g/cm ²
Extensibility at Burst	25-35%

Other Aramid fabrics are also available depending on the working parameters of the hose.

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.



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TO VICTORY**

**WORKING PRESSURE GUIDELINES FOR
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I.D.		Number Of Plies	Typical Wall Thickness (mm)	Burst pressure		Recommended Max. Working Pressure @ 4:1 safety Factor	
(mm)	(")			(Psi)	(Bar)	(Psi)	(Bar)
6.5mm	1/4"	3	4mm	818	56.4	204.5	14.1
8mm	5/16"	3	4mm	677	46.7	169.3	11.7
9.5mm	3/8"	3	4mm	580	40.0	145.0	10.0
11mm	7/16"	3	4mm	508	35.0	127.0	8.8
12.7mm	1/2"	3	4mm	437	30.1	109.3	7.5
16mm	5/8"	3	4mm	361	24.9	90.3	6.2
19mm	3/4"	3	4mm	309	21.3	77.3	5.3
22mm	7/8"	3	4mm	270	18.6	67.5	4.7
25mm	1"	3	4mm	241	16.6	60.3	4.2
28mm	1 1/8"	3	4mm	218	15.0	54.5	3.8
30mm	1 3/16"	3	4mm	205	14.1	51.3	3.5
32mm	1 1/4"	3	4mm	193	13.3	48.3	3.3
35mm	1 3/8"	3	4mm	177	12.2	44.3	3.1
38mm	1 1/2"	3	4mm	165	11.4	41.3	2.9
41mm	1 5/8"	4	4.8mm	203	14.0	50.8	3.5
45mm	1 3/4"	4	4.8mm	189	13.0	47.3	3.3
48mm	1 7/8"	4	4.8mm	177	12.2	44.3	3.1
51mm	2"	4	4.8mm	168	11.6	42.0	2.9
54mm	2 1/8"	4	4.8mm	161	11.1	40.3	2.8
57mm	2 1/4"	4	4.8mm	152	10.5	38.0	2.6
60mm	2 3/8"	4	4.8mm	146	10.1	36.5	2.5
63mm	2 1/2"	4	4.8mm	141	9.7	35.3	2.4
65mm	2 9/16"	5	5.5mm	170	11.7	42.5	2.9
68mm	2 11/16"	5	5.5mm	162	11.2	40.5	2.8
70mm	2 3/4"	5	5.5mm	160	11.0	40.0	2.8
76mm	3"	5	5.5mm	148	10.2	37.0	2.6
80mm	3 1/8"	5	5.5mm	144	9.9	36.0	2.5
83mm	3 1/4"	5	5.5mm	138	9.5	34.5	2.4
89mm	3 1/2"	5	5.5mm	131	9.0	32.8	2.3
102mm	4"	5	5.5mm	116	8.0	29.0	2.0
110mm	4 1/3"	5	5.5mm	107	7.4	26.8	1.9
114mm	4 1/2"	5	5.5mm	103	7.1	25.8	1.8
127mm	5"	5	5.5mm	94	6.5	23.5	1.6
152mm	6"	5	5.5mm	81	5.6	20.3	1.4
200mm	8"	5	5.5mm	64	4.4	16.0	1.1

This data applies to all standard TCH hoses in the Samco Sport range.

