

Coolant Application Silicone Hose

Data Sheet 1.1
Page 1 of 2

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

Silflex Coolant Hoses connect non-fuel components and pipe work in systems designed to operate in a temperature range from -50°C to a maximum of 180°C . Available in a wide range of configurations and dimensions, Silflex Coolant Hose is manufactured from the highest grade silicone rubber formulated specifically for automotive applications. The standard reinforced polyester silicone composite is available to a variable specification to suit individual cooling system applications. Reinforced with heat resistant fabrics, the Silflex range of Standard Coolant Hose is designed to withstand the extreme conditions experienced with contemporary coolant systems; with a proven track record in modern engines. Superb reliability helps reduce maintenance and down time while providing greater engine protection. A high sheen finish is standard with other options available.



General Use

Silflex coolant hose has been specifically designed for the demanding requirements of truck, bus and rail applications and meets or exceeds the requirements of SAE J20 R1 Class A. It is primarily designed for use in coolant and heating systems, and is not adversely affected by anti-freeze solutions, although care should be taken when using OAT coolants in certain application. It can however be used in many other applications where the properties of silicone are preferable to those of other rubbers, or where a flexible joint is required between rigid pipes.

Standard Parts

Silflex produce a range of standard parts suitable for various coolant applications that are kept in stock. Variations of colour, part marking or specialist linings will require a lead time for production.

Hose elbows are produced to 90° , 45° & 135° bends with reducers to suit diameter changes. Reducers and Couplers enable a smooth flow transition between various components & pipe bore sizes. Silflex coolant hose couplers enable the connection of rigid pipe work to

help eliminate vibration, increase flexibility and allow easier assembly and maintenance.

Straight hose lengths provide a flexible link between system pipe work and components. Wire reinforcement & convolutions are also available to avoid kinking due to angles or movement, and can also be manufactured in special materials or formulations.

Construction

Constructed from galvanised spring steel wire (to BS5216 HS3) at a spacing of 2-3 tpi, a wire helix can be added, buried between the plies so that it is not exposed on either the inside or outside of the hose, perfect for high or negative pressure applications or where improved flexibility is required.

Hoses can be supplied with either convoluted or castellated walls where needed. The castellated or convoluted shape allows for more flexibility than standard wire reinforced hose, and the wire helix will allow the hose to perform at negative pressures (not full vacuum). Depending on working temperature, there are various build options available that allow the hose to function properly between -50°C and 180°C .

Engineering Options

Wire Reinforcement - A wire helix between the plies helps to prevent collapse in negative pressure conditions.

Anti Abrasion Sleeves - Anti Abrasion Sleeves to protect against localised abrasion.

Part Marking - Part marking with Silflex or customer logos and part numbers assists with product identification and traceability.

Location Marking - Marks can be added to the hose to specify where components are to be placed such as clips helping speed up installation.

Bespoke Hose Design

Our unique manufacturing process methods allow us to make custom designed hoses including one piece assemblies. If you require silicone hose for a coolant application that standard parts are not suitable for, then you may be interested in our bespoke hose design service.

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 Data Sheet I.1
 Page 2 of 2

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Production Volumes

As a result of our unique manufacturing process we are extremely flexible with production volumes. Silflex has a very diverse range of customers and we understand that each requires individual silicone hose solutions. Many specialist customers require low run and prototype orders however others need high volume mass produced parts. We are a self contained unit capable of offering what other companies cannot, a personally tailored service designed to meet our customers needs.

Materials

Silicone Rubber Compound

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

Materials

Knitted Polyester Fabric

Description	-	Fine Mesh
Yarn Type	-	100% Polyester
Finish	-	Pad Scour & Set
Bursting Strength	(Psi)	33*
Extensibility at Burst	(%)	60
Thickness	(mm)	0.5 ± 0.1

*Fabric. 7" Internal diameter ring.

Specifications

-50°C to +180°C (Standard)

Options

Standard (Polyester Reinforced)

Wire Helix (Intense Vibration or Flex Required)