Fuel Cell & Hybrid Silicone Hose

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**

The Siligiene® 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 the conventional silicones e.g. Siloxanes, while still giving all of the service benefits expected from 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.

Construction

A liner of Siligiene® 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 steel wire helix can also be added, buried between the plies so that it is not exposed on either the inside or outside of the hose, for high or negative pressure applications or where improved flexibility is required. Additionally the hoses can be supplied with either convoluted or castellated walls where required.

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.

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/cm3)	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

Specifications

-50ºC to +180ºC (Standard)

Build Options

Standard (Polyester Reinforced)

Fuel Cell & Hybrid Silicone Hose

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**

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.

Materials

Siligiene® Translucent Liner

Colour	-	Translucent
Hardness	(IRHD)	60º
Specific Gravity	(g/cm3)	1.18
Tensile Strength	(Mpa)	11.0
Elongation at Break	(%)	500
Tear Strength	(N/mm)	42

Materials

FDA Approved Siligiene® Liner

Colour	-	Fine Mesh
Hardness	(IRHD)	60 ± 5
Specific Gravity	(g/cm3)	1.18 ± 0.05
Tensile Strength	(Mpa)	11.0
Elongation at Break	(%)	630
Tear Strength	(N/mm)	42

The above physical properties refer to a test sheet press cured for 10 mins at 175°C, and post cured for 4 hrs @ 200°C. The ingredients used to formulate this silicone rubber are compositionally compliant with FDA regulation 21CFR177.2600, Rubber articles intended for repeated use in contact with food and the BfR recommendation XV "Silicone"