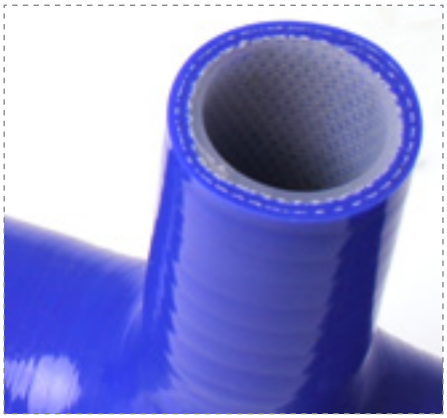
Hygienic & Sterile Silicone Hose

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 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. 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 hygienic and sterile environments.



General Use

Developed to meet the quality requirements and exacting standards of today's pharmaceutical and biotechnical industries. In particular to resist extremes of temperature and the high wear rate of the peristaltic pump. Extremely resistant to ozone, UV concentrations and a wide range of chemicals, this tubing contains no sulphur or acid producing extracts to leach into your product. Special bore and wall thicknesses, degrees of hardness, colour and cross sections are available to minimum order. Repetitive cutting and fabrication to tolerance is available to suit your manufacturing needs. Stock range dimensional tolerance to BS3734.

Construction

A liner of Silgiene® translucent silicone overlaid with plies of silicone reinforced with polyester fabric. The number of reinforcing plies varies with hose bore to suit the pressure rating. Plies are knitted polyester cloth impregnated with silicone. Smooth line bore for clear flow with smooth outer skin of silicone for complete integrity. A convoluted outer is also offered as an alternative for increased flexibility.

Specifically for water transfer, 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.

Pressure Range

The Silgiene® mandrel built polyester reinforced hygienic hose is manufactured to meet a standard pressure safety factor of 3:1. (Please advise of your anticipated operating pressures before ordering). For applications requiring 'high' operating pressures see operating pressures below.

The Silgiene® mandrel built wire reinforced hygienic hose range is designed to operate in environments with working pressures of between 6 and 10 bar working or full vacuum. Please advise before ordering of any requirement beyond 10 bar. Standard pressure safety factor, 3:1.

Water Regulation Approved

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

FDA Approved

Manufactured using a platinum cured silicone elastomer which is compositionally compliant with FDA 21 CFR 177.2600 and USP Class VI standards. Silgiene® hoses are ideally suited for clean industry process/production use. Silflex translucent hose has been specifically designed for food, brewery and chemical applications.

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

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what other companies cannot, a personally tailored service designed to meet our customers needs.

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.

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

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

Temperature Range. -50°C - 180°C

Build Options

Standard (Polyester Reinforced)

Wire Reinforcement

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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”