

SPECIALISTS IN SILICONE RUBBER PRODUCTS

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SILEX SILICONE PRESSURE HOSES

The unique combination of elastomer and textile processing technology under one roof puts Silex in a position to offer its customers a broad range of textile-reinforced pressure hoses for many different high-pressure or vacuum applications.

A specific selection of nominal widths with inner diameters from 3mm (1/8 inch) to 50m (2 inch) is available exstock.

Together with the four standard reinforcements, stainless steel, copper or other metal wires can also be braided in, for example as heating or control leads.

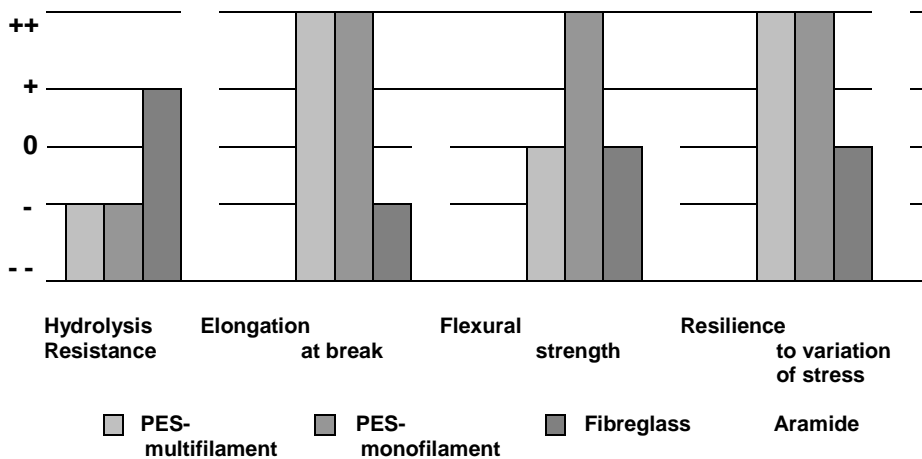
Silicone pressure hoses are used in the following areas:

- Medical technology (e.g. dialysis machines)
- Plant construction (e.g. coolant pipes)
- Machine construction (e.g. suction and filling hoses)
- Industrial kitchen technology (e.g. hot water and steam cooking hoses)
- Food industry (e.g. transport lines conforming with food product requirements)
- Emergency supply systems (e.g. temperature-adjusted respiration hoses)
- Bio-technology (e.g. permeable fermentation pipes)
- Wastewater technology (e.g. gassing hoses)
- Aerospace engineering (e.g. temperature-resistant compressed air pipes)
- Communications engineering (e.g. protection hoses for cold light carriers)

Properties of pressure hose reinforcements (Part 1)

Table with 5 columns: Reinforcement, PES-MF, PES-Mono, Glassfibre, Aramide. Rows include Trade name, Description, Textile form, Temperature resistance, and Dimensions.

Properties of pressure hose reinforcements (Part 2)



These hoses can be equipped with an electrically conductive inner, outer or intermediate ply in the co-extrusion procedure for discharging static electricity.

With its various braiding machines, Silex is capable of producing almost any designs and structures in terms of braiding angle, number or braids or identifying threads. Wide-meshed braiding is used with highly transparent silicone compounds for easy recognition of the flow media. For applications in the fittings and sanitary sector, Silex produces silicone hoses with closed, tight-meshed braids with a stainless wire surface.

Silex uses a low friction coating surface treatment for better handling of the flexible silicone pressure hoses, resulting in a considerable increase in the surface life of such hose systems under the dynamic loads of everyday use. Thanks to the wide range of different variations and versions, Silex's development engineers can produce optimised pressure hose constructions and material combinations specially adapted to each specific application, tested for suitability in the Technical Centre.

Dimensions, bending radius and pressure resistance of Silex standard pressure hoses.

Nominal Width			Outer Diameter	Wall Thickness	Bending Radius	Bursting pressure at 20°C **		Vacuum Suitability
NW	± Tol.	NW				Standard single reinforcement	Optimised double aramide reinforcement	
(mm)	(mm)	(inch)	Standard *	Standard *	Standard *	(bar)	(bar)	Standard single reinforcement absolute pressure (bar)
3	0.2	1/8	8	2.5	30	60	>100	150
6	0.3	¼	12	3	50	40	>100	150
8	0.3	5/16	15	3.5	60	40	>80	150
9.5	0.3	3/8	17	3.75	70	35	>80	150
12.5	0.3	½	21	4.25	80	30	>80	150
16	0.3	5/8	25	4.5	100	30	>80	200
19	0.4	¾	31	6	150	25	>80	200
25	0.5	1	37	6	185	15	>70	250
32	0.5	1 ¼	45	6.5	220	10	>50	300
38	1.0	1 ½	51	6.5	260	10	-	400
50	1.0	2	64	7	350	6	-	600

* Individual optimisation on request.
 ** and a suitable fitting technology.