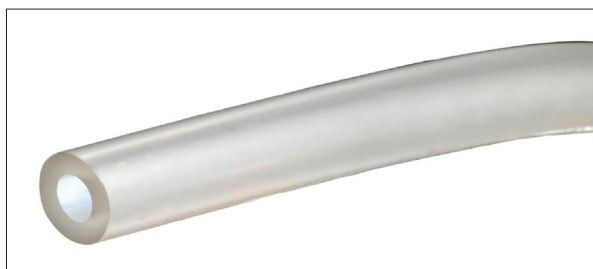


Elastomeric hoses for pharmaceutical and biotechnology applications



C-Flex® 374

Heat-sealed hose for advanced biotechnology applications

Material: translucent special TPE (thermoplastic elastomer)
Hardness: 60 Shore (A)
Density: 0.89 g/cm³
Operating temperature: -45°C to +135°C

A unique, ultra-lightweight, translucent flexible hose made from the patented C-Flex® thermoplastic elastomer. Designed to the critical requirements of pharmaceutical and biotechnology applications with excellent sterile hose *sealing* and bonding capability by welding (*Pharma Tube Sealing and Welding*). Aseptic disconnection of line components and aseptic bonding is commonly used in pharmaceutical and biotechnology processes. Applications include disposable hose sections, pinch valves, preparation of buffers, cell and fermentation cultures, vaccines, botanical products, high purity water, pouring of reagents, laboratory and research work. Chemically resistant, including concentrated acids and bases (see table).

Biocompatible - meets USP Class VI, ISO 10993-3 (*Ames Genotoxicity*), ISO 10993-4 (*Haemolysis, Indirect*), ISO 10993-5 (*Cytotoxicity, In-Vitro*), ISO 10993-11 (*Systemic Toxicity, In-Vivo*), European Pharmacopoeia 3.2.9. (*Rubber Closures for Containers*) and others. Hygienic properties are confirmed by the BPOG extractability report and the Saint-Gobain validation guide for this hose. Compliant with RoHS 2011/65/EU and REACH 1907/2006/EU.

Steam **sterilisation** possible in autoclaves (1 x 30 min, 1 bar, +121°C), radiation with gamma rays or X-rays (up to 5 Mrad / 50kGy). Repeated steam sterilisation destroys the hose, therefore radiation sterilisation is particularly recommended for the C-Flex hose®. Pressure safety factor 3:1. Recommended **assembly** with special biopharmaceutical tips and couplings e.g. Pure-Fit®, welding or special systems e.g. Bio-Simplex® (see later section).

Chemical resistance of C-Flex® (to be pre-selected - verify in manufacturer's tables or confirm with Tubes International):

acids diluted/weak	acids strong / concentrated	rules diluted/weak	rules strong / concentrated	salts	water of high purity	oils / water emulsion	organic solvents, alcohols
V	V	V	V	V	V	needs to be tested	not recommended

index	internal diameter [mm]	external diameter [mm]	wall thickness [mm]	working pressure 20°C [bar]	Bursting pressure 20°C [bar]	mass [kg/m]	standard length [m]
VE-374-125-2	3,2	6,4	1,6	1,7	5,1	0,022	15
VE-374-188-2	4,8	8	1,6	1,5	4,5	0,029	15
VE-374-188-3	4,8	9,5	2,4	2,1	6,3	0,047	15
VE-374-250-2	6,4	9,5	1,6	1,1	3,3	0,034	15
VE-374-250-3	6,4	11,2	2,4	1,5	4,5	0,059	15
VE-374-250-4	6,4	12,7	3,2	2,1	6,3	0,084	15
VE-374-313-3	7,9	12,7	2,4	1,4	4,2	0,069	15
VE-374-375-2	9,6	12,7	1,6	0,9	2,7	0,048	15
VE-374-375-3	9,6	14,3	2,4	1,2	3,6	0,079	15
VE-374-375-4	9,6	15,9	3,2	1,4	4,2	0,112	15
VE-374-500-3	12,7	17,4	2,4	1,5	4,5	0,099	15
VE-374-500-4	12,7	19,1	3,2	1,1	3,3	0,142	15
VE-374-625-4	15,9	22,2	3,2	0,9	2,7	0,168	15
VE-374-750-4	19,0	25,4	3,2	0,8	2,4	0,199	4,5
VE-374-750-6	19,0	28,3	4,8	1,4	4,2	0,307	4,5
VE-374-750-8	19,0	31,7	6,4	1,4	4,2	0,450	4,5
VE-374-1000-6	25,4	34,9	4,8	1,0	3,0	0,400	4,5
VE-374-1000-8	25,4	38,1	6,4	1,1	3,3	0,563	4,5

Notes: Minimum order quantities may apply - contact Tubes International.

Other types of C-Flex hoses are also available on special request: C-Flex 082 and C-Flex 072 opaque - type 072 for light-sensitive substances and extended life in peristaltic pumps.



A special thermoplastic elastomer (C-Flex®) allows hose connections to be made using heat welding to achieve tight, sterile connections.

It is also widely used to make airtight seals on the hose (to cut off) for sterile disconnection of parts of the hose system.

Special welding machines are designed for welding hoses.

