Fluoropolymer (FEP) chemical hoses - for the most aggressive chemicals

TEFLEX

Hose for aggressive chemicals, for hygienic conditions

Layer inside: white, smooth FEP
Reinforcement: synthetic cord, steel spiral **Outer layer:** orange, smooth EPDM rubber **Operating temperature:** from -40°C to +150°C

Top quality suction and delivery hose designed to transfer a very wide range of aggressive chemicals. The hose's wide application, especially in the chemical industry, is conditioned by the excellent resistance of the FEP fluoropolymer to aggressive solvents and concentrated lyes and acids such as hydrochloric, sulphuric, phosphoric and nitric acids as well as sodium and potassium lye. The hose can also be used in the food and pharmaceutical industries. It is readily used in clean areas.
Inner layer of white tetrafluoroethylene/fluoropropylene copolymer FEP (a thermoplastic fluoropolymer with Teflon-like properties), mirror-like smooth (prevents medium from depositing on the walls and is easy to clean), odourless and tasteless, meeting high hygienic requirements (FDA, USP Class VI). **The intermediate layers** made of white synthetic rubber, contain a synthetic cord **reinforcement**, a steel wire spiral and two copper wires to dissipate static electricity. **The outer layer of** orange EPDM rubber, resistant to abrasion, ozone and weathering. The hose is characterised by excellent **chemical and FEP purity resistance and exceptional heat resistance**. Specially designed for Cleaning-in-Place (CIP), including 150ºC steam sterilisation.

Cleaning (food industry):

hot water	steam	hydrogen peroxide		peracetic acid		phosphoric acid	chlorine	sodium hydroxide	nitric acid	
		1%	3%	0,1%	0,5%	5%	1%	5%	0,1%	3%
100°C / 8 h	150°C / 30 min	max 100°C / 30 min	max 80°C / 30 min	max 100°C / 30 min	max 80°C / 30 min	max 100°C / 30 min	max 80°C / 30 min	max 100°C / 30 min	max 100°C / 30 min	max 80°C / 30 min

Standards and requirements: Chemical hoses: EN 12115:2011(type M). Food industry, food contact (inner layer): USP Class VI, FDA 21 CFR 177.1550.

Chemical **resistance check:** PTFE **chemical** resistance table (pre-selection), FEP resistance table (available from Tubes International, pre-selection), confirmation of resistance and application conditions by Tubes International.

Fitting: Use a spigot ("tail" to the hose) that is smooth and has no sharp or high notches that could cut or damage the FEP inner layer when clamped. The diameter of the spigot should be exactly matched to the diameter of the hose to ensure tightness. Copper lines should be properly connected to the ferrules. Installation with collets or shell clamps.

index	internal diameter [mm]	external diameter [mm]	wall thickness [mm]	working pressure [bar]	Bursting pressure [bar]	vacuum [bar]	bend radius [mm]	mass [kg/m]	Roll length [m]
IV-TEFLEX-19	19	31,5	6,25	16	64	0,9	90	0,70	20 / 40
IV-TEFLEX-25	25	37,5	6,25	16	64	0,9	120	0,97	20 / 40
IV-TEFLEX-32	32	45	6,5	16	64	0,9	150	1,19	20 / 40
IV-TEFLEX-38	38	51,5	6,75	16	64	0,9	180	1,40	20 / 40
IV-TEFLEX-51	51	65,5	7,25	16	64	0,9	250	2,04	20 / 40
IV-TEFLEX-76	76	91	7,5	16	64	0,9	400	3,09	20 / 40

Note: Indexes highlighted in colour - most commonly used.

TEFLEX hose DN25 with stainless steel, hygienic TRICLOVER end, permanently mounted stainless steel collet, used for the transfer of aggressive chemicals in the pharmaceutical industry.

Hose TEFLEX DN38 with tip type TANKWAGEN VK 2" (TW-VK-050-SSR+ GD-VSLB-050-038-SS) in AISI 316 stainless steel mounted with a stainless steel shell clamp (RS-6038007020), used for chemicals in the chemical rescue unit.