

Food hoses made of TPE (thermoplastic elastomer)



PHARMASTEEL PRESS

TPE hose with braid and steel spiral for food, pharmaceutical and cosmetic substances

- Layer inside :** transparent TPE-S
- Reinforcement:** polyester braid, spiral with AISI 302 stainless steel
- Outer layer :** transparent TPE-S
- Operating temp:** -30°C to +100°C (temperature-dependent operating pressure)

A flexible suction and delivery hose designed for transfer of food, pharmaceutical and cosmetic substances: water, fruit juices, beer, wine, vinegar, alcohols with a concentration of up to 96%, milk and milk products, creams, soaps, aromatic substances, pigments and others. Resistant to fats and oils within the standard range of use. Good chemical resistance to light chemicals - acid and alkaline solutions. The extruded, completely smooth inner and outer surface of the hose facilitates flow and cleaning. The hose's double helix and braid reinforcement provides good resistance to overpressure and underpressure. The hose material is non-vulcanised, clean (no vulcanising additives), hydrolysis resistant, does not promote bacterial growth, low porosity and low permeability. Completely neutral in terms of taste and odour, does not alter the organoleptic properties of the medium. Resistant to ageing, atmospheric conditions and UV radiation. Hose cleaning, disinfection or sterilisation strictly according to the recommendations given. Cleaning by the SIP method, which clearly shortens the service life, is not recommended. Use with high alcohol (its vapours or other flammable substances) requires consideration of static electricity hazards.

Cleaning:

hot water	water vapour*	chlorine	sodium hydroxide		nitric acid	
		max 1%	2%	5%	0,1%	3%
max 65°C / 20 min	max 121°C / 30 min (1bar)	max 65°C / 20 min	max 75°C / 20 min	max 20°C / 20 min	max 75°C / 20 min	max 20°C / 20 min

* - permissible (not recommended) - reduces service life

Standards and requirements:

Food industry, food contact: complies with European requirements 1935/2004/EC and 10/2011/EU (simulants A, B, C, D1, D2), 2023/2006/EC (GMP) and US FDA 21 CFR 177.2600 "e".

Pharmaceutical industry: USP CLASS VI.

index	internal diameter [mm]	external diameter [mm]	wall thickne ss [mm]	Operating pressure 20°C	Burst pressure 20°C [bar].	vacuum 20°C [bar].	bend radius [mm]	mass [kg/m]	Roll length [m]
IP-PHARMASTEELPR-013	13	23,5	5,25	17	51	0,98	65	0,31	60
IP-PHARMASTEELPR-020	20	32	6	13	39	0,98	100	0,49	60
IP-PHARMASTEELPR-025	25	37,5	6,25	12	36	0,98	125	0,64	60
IP-PHARMASTEELPR-032	32	44	6	11	33	0,88	160	0,75	60
IP-PHARMASTEELPR-038	38	51	6,5	10	30	0,88	190	0,94	30
IP-PHARMASTEELPR-050	51	65	7	10	30	0,78	250	1,48	30
IP-PHARMASTEELPR-063	63	79	8	10	30	0,78	315	1,95	30
IP-PHARMASTEELPR-076	76	91	7,5	9	27	0,69	380	2,11	30
IP-PHARMASTEELPR-102	102	118	8	7	21	0,69	510	3,02	20

Note: indexes highlighted in colour - most commonly used

Approximate temperature dependence of burst pressure and working pressure for typical TPE hoses	temperature pressure	20°C	40°C	60°C	80°C	100°C	120°C
			100%	98%	81%	57%	40%