

Polyethylene (UPE) chemical hoses - for many aggressive chemicals



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CHEM STAR UPE SD

Proven hose for acids and alkalis, anti-static, economical

Inner layer: UPE black polyethylene
Reinforcement: textile cord, steel spirals
Outer layer: black EPDM rubber
Operating temp: -30°C to +100°C

Robust suction and delivery hose with inner layer of chemically resistant ultra-high molecular weight polyethylene (UPE, UHMWPE). The inner layer made of UPE is resistant to most aggressive chemicals, anti-static ($R < 10^{(6)} \Omega$), complies with the requirements for food hoses, smooth, with a low coefficient of friction during flow, preventing the medium from depositing on the walls. This greatly facilitates cleaning and also allows use in the cosmetic, pharmaceutical and food industries. Reinforced with synthetic cord and steel spirals. Outer layer made of chemically resistant EPDM rubber, anti-static ($R < 10^{(6)} \Omega$), abrasion-resistant, ozone-resistant, weatherproof, fire-resistant. Compliant with EN 12115:11 type Ω/T , completely antistatic - ensures that electrostatic charge is also dissipated through the hose wall ($R < 10^{(9)} \Omega$). This allows the hose to be used in hazardous areas. A hose widely used for many applications in the chemical industry.

Standards and requirements: Chemical hoses: EN 12115:2011 (type Ω/T). Food industry, food contact (inner layer): 1935/2004/EC, 2023/2006/EC (GMP), 10/2011/EU (simulation fluids A, B, C, D2).

Chemical resistance check: UPE chemical resistance table (pre-selection), confirmation of resistance and conditions of use by Tubes International (especially for temperatures above 50°C).

Fitting: use spigot ("tail" to hose) ends that are smooth and do not have sharp or high notches that could cut or damage the UPE inner layer when clamped. The diameter of the spigot should be exactly matched to the diameter of the hose to ensure tightness. 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]
SO-CHEMSTAR-UPE-SD-019	19	31	6	16	64	0,9	114	0,67	61
SO-CHEMSTAR-UPE-SD-025	25	37	6	16	64	0,9	150	0,83	61
SO-CHEMSTAR-UPE-SD-032	32	44	6	16	64	0,9	192	1,00	61
SO-CHEMSTAR-UPE-SD-038	38	51	6,5	16	64	0,9	228	1,30	61
SO-CHEMSTAR-UPE-SD-051	51	67	8	16	64	0,9	300	1,99	61
SO-CHEMSTAR-UPE-SD-063	63	79	8	16	64	0,9	378	2,58	61
SO-CHEMSTAR-UPE-SD-076	76	92	8	16	64	0,8	450	3,11	61
SO-CHEMSTAR-UPE-SD-102	102	118	8	16	64	0,8	600	3,93	61

Note: Indexes highlighted in colour - most commonly used.



CHEMSTAR UPE SD hose DN25 with CAMLOCK type ERS 1" endpiece in AISI 316 stainless steel. This endpiece has a smooth spigot ("tail"), well matched to the inside diameter of the hose, and a lock (safety collar). This allows clamping with a shell clamp or collet.

CHEMSTAR UPE SD DN76 hose with 3" BSP male thread (GD-VSLB-080-075-SS) in AISI 316 stainless steel clamped with a collet (TI-LDR-092-48-SS) in AISI 304 stainless steel. A variety of couplings can be screwed onto the 3" BSP male thread (TANKWAGEN, CAMLOCK, dry-cut coupling, etc.). A 3" (DN76) hose in this connector configuration will often be used for handling concentrated acids or other chemicals.

