

PEHD Water pipes

Technical datasheet

Applications

Peštan PEHD pipes are used for water conduction under pressure. Pipeline can follow configuration of the ground because of its elasticity that reduces couplings needed. Very flexible and extremely resistant to vibration, seismic strikes and ground movements.

Product description

Peštan PEHD pipes are high quality pipes made of supreme quality polyethylene PE-80 and PE-100. Complete program Peštan PEHD pipes is produced under the norm EN 12201. Polyethylene water pipes are resistant to UV rays and temperatures up to 60°C. They are completely physiologically and toxicologically safe for use in water supply.



Product Availability

Production range covers diameters from Ø16 to Ø1200. These pipes are being made in 10 versions (depending on the pressure they are ment for):

SDR 7,4 - PN 25	SDR 17 - PN 10	SDR 41 - PN 4
SDR 9 - PN 20	SDR 21 - PN 8	
SDR 11 - PN 16	SDR 26 - PN 6	
SDR 13,6 - PN 12,5	SDR 33 - PN 5	

Peštan is able to offer complete program of welded accessories made in all diameters and in all working pressures. Also other working pressures are available by the request

Characteristics and technical data

Safety coefficient of PEHD pipes is 1,25. Bending radius is 20d. PEHD pipes have high abrasion resistance. Very low pressure losses since coefficient friction are 10 times less than with steel pipes. Easy for transport and handling. Easy connection by welding or with couplings. Life time above 50 years. No impact on water taste and smell. Tartar free that helps reduction water flow during the time. Coefficient of linear extension for polyethylene is $1,3 \times 10^{-4} \text{C}^{-1}$ (0,13 mm/m °C).

Resistance to superficial temperatures:

Under the higher exploitation temperatures (industrial appliance) it is necessary to adjust the value of PN by using reducing coefficient from the table

Pressure reduction coefficient for PE100 i PE80 piping systems	
Temperature	Coefficient
20°	1,00
30°	0,87
40°	0,74

Physical properties of materials

	Norm	UOM	PE 80	PE100
Density on 23°C	ISO 1183-1	g/cm ³	0,93	0,95
Mass flow	ISO 1133	g/10 min	0,45	0,45
Tensile strenght	ISO 527	MPa	23	25
Elasticity modul	ISO 178	MPa	1000	1300
The coefficient of linear expansion	DIN 53 752	mm/m°K	0,18	0,18
Vicat softening point	ISO 306	C°	72	77
Thermal conductivity on 20°	DIN 53 612	W/m°K	0,4	0,38
Surface resistivity	DIN/IEC60167	Ω	>10 ¹⁴	VT>10 ¹⁴

Assembly of polyethylene pipes

There are more ways of connecting polyethylene water pipes:

- Head welding
- Electro-fusion
- Compression fitting (up to diameter 125)
- Connecting sleeves and langes

The minimum allowed temperature for welding and installing PEHD water pipes is 5°C.

Head welding and electro-fusion are being executed according to DVS 2207-1

Chemical resistance

Resistant to fresh and salt water, to vegetable and animal oils, alcohol, chlorine compounds, alkaloid acids, bases and detergents. Do not contain heavy metals (eg Pb, Cd, Sn...).

*Plastic pipes and fittings - Combined chemical-resistance classification table ISO/TR 10358.

Technical Assistance

Our technical and engineering team is supported and advised by European institutes. For more information about products please contact PEŠTAN technical support or regional salesman.



BELNIIS - Belarus



KIWA - Netherland



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IGH - Croatia