PEHD RC pipes
Techical datasheet

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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. They have significantly higher resistance to slow crack growth, compared to ordinary pipes made of PE 80 and PE 100. They are used for alternative ways of installation, such as directional drilling, drilling, pipe bursting, laying pipelines without sand bedding, etc.

Product description

Peštan RC is a compact (full wall) tube made of an innovative, extremely robust plastic BorSafe HE3490-LS-H. Tube prepared like this provides increased security and longer lifetime of pipes compared to traditional PE pipes, even when it comes to extreme loads, such as notching pipes, gutters and spotty loads. All BorSafe LS-H are certified as PE 100-RC (resistant to crack).
Increased security and improved mechanical properties are the result of a shift catalyst in the production process of the material.

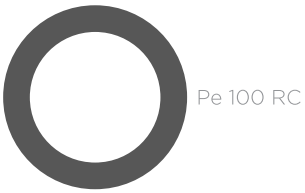
Product Availability

Production range covers diameters from Ø16 to Ø800. These pipes are being made in 10 versions (depending on the pressure they are ment for):

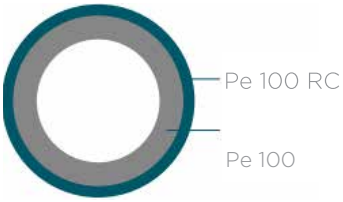
SDR 6 – **PN 25**	SDR 13,6 – **PN 10**	SDR 33 – **PN 4**
SDR 7,4 – **PN 20**	SDR 17 – **PN 8**	SDR 41 – **PN 3,2**
SDR 9 – **PN 16**	SDR 21 – **PN 6**	
SDR 11 – **PN 12,5**	SDR 26 – **PN 5**	

Peštan produces two types of pipes from PE 100 RC:

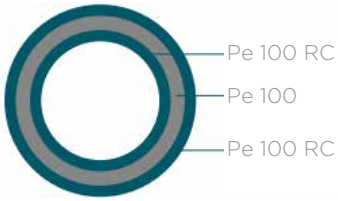
TYPE 1 – Solid wall pipes made of PE 100-RC:
Pipes solid wall of one wall made of PE 100-RC as defined by ISO 4065. The pipes can be made in blue or black water pipes with blue stripes, according to the applications which are also made of PE 100 RC materials.



TIP 2 – Pipe with dimensional integrated protective layer made of PE 100-RC:
1. Double-layer pipes dimensional integrated protective layer which are made of PE 100 and PE 100 RC and have a co-extruded outer protective layer made of PE 100-RC.



2. Three-layer pipes with dimensional integrated protective layers of PE 100-RC. The pipes are made of PE 100 or PE 100-RC and have from the internal and external co-extruded protective layer made of PE 100-RC.



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

Assembly of polyethylene pipes

There are more ways of connecting polyethylene water pipe:
- Head welding
- Electro-fusion
- Compression fitting (up to Ø125)
- Connecting sleeves and langes

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

Methods of installation of PEHD RC pipes:
There are several alternative ways to install PEHD RC pipes:
- Laying in narrow trenches
- Laying plowing
- Directional drilling
- Drilling
- Pipe bursting
- Slip lining

Chemical resistance

Peštan PEHD 100 RC is 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

VUPS - Czech Republic

BELNIIS - Belarus

IMS - Serbia

GOST R - Russia

MPA - Germany

IGH - Croatia