

PE 100 RT CEVI ZA ZAŠTITU KABLOVA

Tehnički list

APPLICATION

Peštan PE-RT pipes are designed for the protection and routing of cables in underground installations. They are specifically engineered to support various cable installation methods, including blowing, jetting, pulling, and pushing, making them ideal for protecting both electrical cables and optical fibers.

The flexibility of the pipeline allows it to easily adapt to the terrain configuration, significantly reducing the need for joints.

The pipe is highly flexible and resistant to vibrations, seismic activity, and ground movements.

They are primarily used as conduits for underground installation of high and extra-high voltage cables, up to 525 kV, thanks to their stable resistance to temperatures up to 70 °C and ability to withstand short-term increases up to 95 °C.

PRODUCT DESCRIPTION

Peštan PEHD pipes are high-quality pipes made of premium-grade polyethylene – PE-RT or PE-100.

The inner surface of the pipe is smooth, reducing the contact area between the cable and the pipe, thereby lowering the friction coefficient and enabling long-distance blowing of optical cables.

- Pipes are manufactured in accordance with DIN and EN standards
- Solid (compact) PE pipe construction
- Available as single-layer or multi-layer pipes with smooth ends

EN 12201; DIN16874; DIN 16876; DIN 8074 / 8075; DIN EN 61386-24 (VDE 0605-24); DIN 16842; DIN 16833

PRODUCT AVAILABILITY

Peštan PEHD pipes are manufactured in all diameters ranging from Ø32 mm to Ø630 mm, available in lengths of 6 m, 12 m, 13.5 m, and 16 m (straight bars), or in coils of 50 m, 100 m, and 200 m (up to 300 m depending on the diameter).

They can be produced as:
Single-layer pipes (black, optionally with colored stripes)
Double-layer pipes (with a colored outer layer)

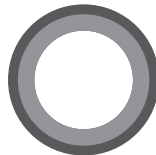
TYPE 1 - Single-layer pipes

Pipes can be produced in a single layer, in black color, or optionally in black with co-extruded colored stripes.



TYPE 2 - Double-layer pipes:

Double-layer pipes with a dimensionally integrated colored outer layer.



Pipe Marking

Marking of these pipes is carried out in accordance with the applicable standard. Identification markings are printed every full meter on one side of the pipe (optional: multiple markings along the circumference).

PRODUCT SPECIFICATIONS

Peštan PEHD pipes for cable protection and installation are made of PE-RT or PE 100 polyethylene.

The ring stiffness of the pipes is very high and, depending on the diameter and pipe type, can exceed 50 kN/m², allowing installation in areas with increased soil load — in accordance with static calculations. (Expected service life: over 50 years at 70°C.)

These pipes are characterized by long-term thermal stability and durability. (Expected service life: over 50 years at 70°C.)

PEHD protective and installation pipes are UV-stabilized. They are electrical insulators and do not contribute to flame propagation (normal flammability, class B2 according to DIN 4102-1).

The safety factor of PEHD pipes is 1.25, and the minimum bending radius is 20d. PEHD pipes have high abrasion resistance. The linear expansion coefficient for polyethylene is 1,8×10⁻⁴K⁻¹ (0,18 mm/m °K).

Svojevstvo	Tipična vrednost: PE-RT (uklj. PE100 RC)	Jedinica mere	Test metoda
Gustina	>940	kg/m ³	ISO 1183-1
Brzina topljenja (190 °C/5 kg)	>0,2	g/10min	ISO 1133-1
Modul zatezanja (1mm/min)	>950	MPa	ISO 527-2
Zatezna čvrstoća pri kidanju (50mm/min)	>600	%	ISO 527-2
Vreme indukcije oksidacije (210 °C)	>30	min	ISO 11357-6
Otpornost na brzo širenje pukotine	>10	bar	ISO 13477
Test modula očvršćavanja (SHT)	≥65	MPa	ISO 18488
Ubrzani test zarezane cevi (ANPT) u 2% Arkopal N-100 rastvoru (9,2 bar, 80 °C)	≥300	h	ISO 13479
Ubrzani test pužanja sa punim zarezom (AFNCT) u 2% Dehyton rastvoru (4 Mpa, 90 °C)	≥500	h	ISO 16770
Test konvertovane zarezane šipke (CRB), konvertovane na 14,0 mm i početne dužine zareza 1,40 mm (12,5 Mpa, 23 °C)	≥1,5	Milion ciklusa	ISO 18489
Otpornost na vremenske uticaje ≥ 7 GJ/m ² , test prema EN12201-1	PROLAZ	Prolaz	EN ISO 16871

PRODUCT AVAILABILITY

PE 100 RT - DN32-DN630				
SDR 7,4	SDR 11	SDR 17	SDR 21	SDR26
PN25	PN16	PN10	PN8	PN6



INSTALLATION OF POLYETHYLENE PIPES

Peštan PE-RT pipes can be connected in several ways, depending on the application and pipe diameter:

- Butt welding
- Electrofusion welding
- Compression fittings (up to diameter 125 mm)
- Connection sleeves and flanges

Butt welding and electrofusion welding are performed in accordance with DVS 2207-1 standard.

CHEMICAL RESISTANCE

Peštan PEHD cable protection pipes are resistant to the effects of water, components present in concrete and other construction materials, corrosion, and other external influences.

The chemical resistance of polyethylene allows installation in saline and chemically aggressive soils.

Plastic pipes and fittings - Combined table of chemical resistance classification according to ISO/TR 10358.

TECHNICAL SUPPORT

For more information, please contact PEŠTAN Technical Support or your regional sales representative.