

PRINETO Multilayer composite pipe, with quadratic insulation 100%

(Art.-nr. 878 528 101)

(Art.-nr. 878 528 201)

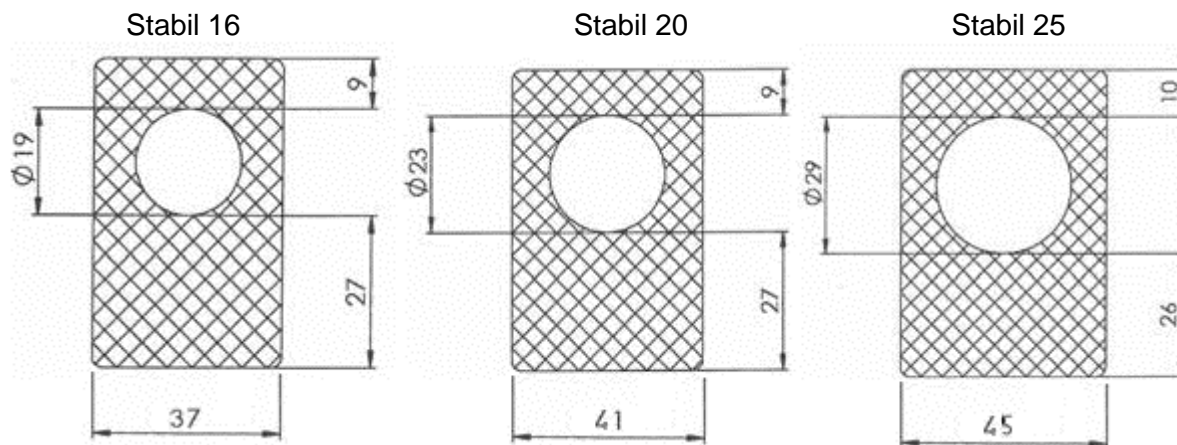
(Art.-nr. 878 528 301)



Multilayer composite pipe, with quadratic insulation 100% in accordance with EnEV for surface heating pipes over unheated rooms or ground, approved in accordance with DVGW worksheet W 542, basic pipe of cross-linked polyethylene PE-X in accordance with DIN 16892/16893 pipe series S 3.2, with aluminium foil laser butt-welded and outer PE cover, oxygen-tight in accordance with DIN 4726, application classes 1,2,4 and 5 in accordance with EN ISO 21003-1, ÖVGW and other country approvals, enclosed by closed-cell polyethylene (WLG 040) with tough PE outer skin, clamped with nickel-plated sliding sleeve.

1. Measures

Bundle length: 25 m
 Colour pipe: white
 Colour insulation: red

**2. Operating conditions**

The operating conditions for PRINETO multilayer composite pipes are describes and defined in DIN EN ISO 21003. The pipe systems are subdivided into application classes, in which the maximum operation temperatures are given for a difined period of time (in relation to a service life of 50 years). The permissible operating pressure are as following:

Applicaiton class 1 = plumbing hot-water supply 60°C (for Germany)

Operation temperature: 60°C for 49 years
 Maximum operating temperature: 80°C for 1 year
 Failure temperature: 95°C up 100 hours
 Permissible operating pressure: 10 bar

Applicaiton class 4 = surface heating, low-temperature radiator heating

Operation temperature: 20°C for 2,5 years
 + 40°C for 20 years
 + 60°C for 25 years
 Maximum operating temperature: 70°C for 2,5 years

Failure temperature: 100°C up 100 hours
 Permissible operating pressure: 10 bar

Applicaition class 5 = high-temperature radiator heating

Operation temperature: 20°C for 14 years
 + 60°C for 25 years
 + 80°C for 10 years
 Maximum operating temperature: 90°C for 1 year
 Failure temperature: 100°C up 100 hours
 Permissible operating pressure: 10 bar

3. Material properties Pipe

	PE-X _b (HD)	Norm
Degree of cross-linking (%)	65	DIN 16892
Density (g/cm ³)	approx. 0,94	DIN EN ISO 1183
Tensile strength (N/mm ²)	approx. 23	DIN EN ISO 527
Elogation at tear (%)	approx. 400	DIN EN ISO 527
Secant elasticity modulus (N/mm ²)	approx. 600	DIN EN ISO 527
Impact resistance at -20°C	no fracture	DIN EN ISO 179/180
Notch impact resistance at -20°C	no fracture	DIN EN ISO 179/180
Stress cracking resistance 8 bar, 80° C	no crack	ISO 16770
Thermal conductivity (W/mK)	0,35	DIN 52612
Lineal expansion coefficient (per Kelvin)	0,00015	DIN 53752
Pipe internal surface finish (mm)	0,007	DIN 1988

4. Material properties Insulation

Quadratic extruded, closed-cell polyethylene with tough PE outer skin
 100 % HFCKW- und HFKW- free in accordance to climate protection convention, Halogenfree¹

Pipe density	approx. 35 kg/m ³
Thermal conductivity acc. DIN 52614 or rather EN ISO 12667 medium temperature +10 °C	
Medium temperature +40 °C	0,040 W/(mK)
Coeff. of thermal conductivity - Characteristic acc. approval Z-23.14-1774	0,042 W/(mK)
Flammability class acc. to ÖN B 3800-1**	B2
Fire behaviour acc. to ÖN EN 13501-1	E _L
Construction material class acc. to DIN 4102	B2
Temperature application	up to +90 °C
CE-identification	acc. EN 14313

* according to guideline Baubook

** ÖN per 01.01.2004 called back