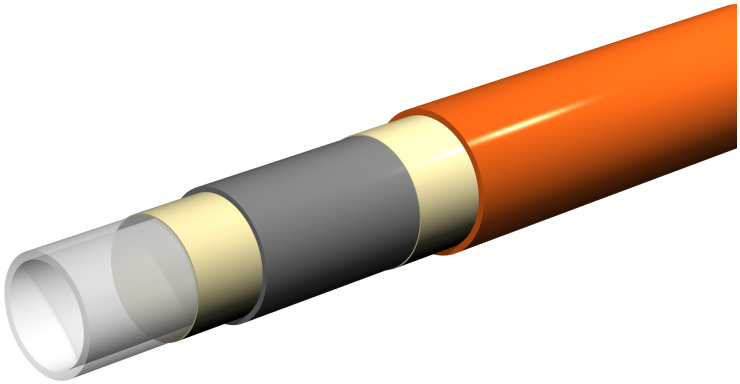
Product Data Sheet

10/29/2025

Heating Distribution (Plastic Pipes)

PexPenta PE-Xc

Romania - Purmo



- Durable construction.
- High temperature resistance.
- Oxygen barrier protection.
- Environmentally safe.
- Wide application range.

Description

The PexPenta PE-Xc heating pipe combines high-density polyethylene with an innovative five-layer construction, including an EVOH oxygen diffusion barrier. This central layer is securely protected, providing unmatched resistance to mechanical damage. Certified to DIN 4726 and DIN EN ISO 21003 standards, it ensures long-term performance with a maximum operating temperature of 90°C and a pressure limit up to 10 bar. Ideal for various heating applications, it ensures reliable and efficient energy distribution.

Area of Application

The PexPenta PE-Xc is ideal for underfloor, wall, and ceiling heating and cooling systems, with a focus on stable mechanical properties at high temperatures. Its design complies with DIN 4726 standards for oxygen impermeability, ensuring long-term efficiency and performance. Suitable for high-temperature radiator systems up to 90°C and pressures up to 10 bar.

Selection Criteria

Choose the PexPenta PE-Xc based on required diameters, pressure ratings, and temperature limits. For quick selection, use our brochure or contact our design service.

Basic User Instructions

Ensure that the PexPenta PE-Xc is correctly dimensioned for your heating system. Handle coils with care to avoid damage to the EVOH oxygen barrier layer. Connect only with certified fittings and ensure bends are within the specified radius to avoid stress. Maximum operational parameters are 90°C temperature and 10 bar pressure, guaranteeing safe and efficient performance. Store in a dry place shielded from direct sunlight.

Prescription text specifiers

The PexPenta PE-Xc is a high-density polyethylene heating pipe with a five-layer design, featuring an EVOH oxygen diffusion barrier. It complies with DIN 4726 and DIN EN ISO 21003 standards for superior performance and safety. The pipe has a density of 0.94 g/cm^3, a minimum bending radius of 5 times the diameter, and an oxygen permeability of <0.32 mg/m^{2}d at 40°C. The materials in use offer a tensile strength of 24-30 N/mm^2 and elongation of 400-600%. Rated for a maximum operating temperature of 90°C and 10 bar pressure, it is highly suitable for a range of heating applications, including underfloor, wall, and ceiling systems.

Warranty

30 year warranty

Specification

Feature	Unit	Value
Etim Class		EC010225 - Multi-layered pipe, smooth
Weight	Kilogram (kg)	11.184, 21.12, 22.368, 24.48, 42.24, 55.92, 61.2, 69.3, 85
CO2/Kg equivalent per kg of material		117.432, 145.53, 178.5, 23.4864, 44.352, 46.9728, 88.704
UV resistant		No
Halogen free		Yes
Flexible		Yes
Wall thickness	Millimetre (mm)	2
Glass-fibre reinforced		No
Water content	Litre per metre (l/m)	0.0785, 0.1327, 0.201, 0.3269
Number of layers		27, 5, 6, 7
Outer pipe diameter	Millimetre (mm)	14, 16, 17, 20, 25
Suitable for surface mounting		No, Yes
With heating cable		No
Max. medium temperature (momentarily)	Degrees celsius (°C)	110
Min. bending radius without tools	Millimetre (mm)	100, 125, 70, 85
Max. operating pressure at max. medium temperature	Bar (bar)	8
Thickness intermediate layer	Millimetre (mm)	0.2
Min. bending radius	Millimetre (mm)	100, 125, 70, 85
Expansion coefficient	Millimetre per metre Kelvin (mm/(m.K))	0.15
With mantle pipe		No
Pipe colour		Orange
Quality class inner layer		PE-Xc
Quality class intermediate layer		Ethylene vinyl alcohol (EVOH)
Quality class outer layer		PE-Xc
Wall roughness	Millimetre (mm)	0.007
Diffusion-proof		Yes
Max. operating pressure at 20 °C	Bar (bar)	10
Medium temperature (continuous)	Degrees celsius (°C)	5, 90
Nominal diameter		DN 15, DN 16, DN 20, DN 25
With thermal insulation		No
Material inner layer		Plastic
Material intermediate layer		Plastic
Material outer layer		Plastic
System specific		No, Yes
Item weight	Kilogram (kg)	12.24, 13.68, 27.36, 64.2

Resources

Document Description	Document Type	Link
	Brochure	https://asset.productmarketingcloud.com/api/assetstorage/3577_151fa5dc-385f-4916-866b-734aba770b0a

Items

Global Item Code	Item Description
FBAXC5C142012000	PURMO heating pipe Premium line PexPenta PE-Xc 14 x 2, 120 m ring
FBAXC5C142024000	PURMO heating pipe Premium line PexPenta PE-Xc 14 x 2, 240 m ring
FBAXC5C142060000	PURMO heating pipe Premium line PexPenta PE-Xc 14 x 2, 600 m ring
FBAXC5C162012000	PexPenta PE-Xc 16x2, 120 m
FBAXC5C162024000	PexPenta PE-Xc 16x2, 240 m
FBAXC5C162060000	PexPenta PE-Xc 16x2, 600 m
FBAXC5C172012000	PURMO heating pipe Premium line PexPenta PE-Xc 17 x 2, 120 m ring
FBAXC5C172024000	PURMO heating pipe Premium line PexPenta PE-Xc 17 x 2, 240 m ring
FBAXC5C172060000	PexPenta PE-Xc 17x2 600m
FBAXC5C202012000	PURMO heating pipe Premium line PexPenta PE-Xc 20 x 2, 120 m ring
FBAXC5C202024000	PURMO heating pipe Premium line PexPenta PE-Xc 20 x 2, 240 m ring
FBAXC5C202050000	PURMO heating pipe Premium line PexPenta PE-Xc 20 x 2, 500 m ring
FBAXC5C252330000	PURMO heating pipe Premium line PexPenta PE-Xc 25 x 2.3, 300 m ring