PRODUCT DATA SHEET PERT EVOH 5 LAYER Type II





PERT EVOH 5 LAYER TYPE II

PERT EVOH 5 layer pipes can be used for the distribution of water inheating and/or cooling systems. Thanks to the high flexibility of this material, the layingoperations of the pipes result extremely easy and quick. PERT EVOH 5 layer pipe is not subjected to encrustations and electrochemical phenomenon. PERT EVOH 5 layers pipes are extruded with an EVOH antioxygen barrier manufactured according to ISO 22391 - DIN 4726 and ISO 17455

1. RANGE

Ø 16 x 1.8 - Ø 16 x 2.0 Ø 17 x 2.0 Ø 18 x 2.0 Ø 20 x 1.9 - Ø 20 x 2.0



2. TECHNICAL DATA

-Application classes (ISO 22391): 4

-Density at 23 °C: > 0,941 g/cm3

-Thermal conductivity: 0,40 W/m K

- -Thermal expansion coefficient: $(1,8 \times 10-4)/K$
- -Breaking load: 36 MPa
- -Breaking elongation: 760 %
- -Elastic modulus: 650 MPa
- -External 5-layer EVOH anti-oxygen barrier

-The pipes are suitable for transporting water for a period of 50 years at a working temperature corresponding to the field of application and an operating pressure of 6 bar.

-The pipes are suitable for transporting water for a period of 50 years at a temperature of 20 °C and an operating pressure of 10 bar.

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PERT EVOH 5 layer are designed and verified according to ISO 22391 Standard, that define the physical and dimensional features, as well as the evaluation of the resistance to the combined stress of pressure and temperature, with reference to the related regression curves.

3. RESISTANCE TO COMBINED PRESSURE AND TEMPERATURE STRESS WITH RESPECT TO REGRESSION CURVES.

Range of application	Working temperature T _p [≌C]	Duration of T _p [years]	Max. working temperature T _{MAX} [≌C]	Duration of T _{MAX} [years]	Failure temperature T _{FAIL} [ºC]	Duration of T _{FAIL} [h]
CLASS 4 Underfloor heating and low-temperature radiators	20 + 40 + 60	2,5 + 20 + 25	70	2,5	100	100

- Working temperature (TD): working temperature provided for the range of application, expressed in ^oC.
- Max. working temperature (TMAX): the working temperature highest value, allowed only for a short time.
- Failure temperature (TFAIL): the highest temperature possible when control systems fail (the time allowed for this value is 100h over 50 years of uninterrupted operation).

