

PE-RT pipe (5-layers)



What characterises pipes made of PE-RT?

Polyethylene of raised temperature resistance: Due to the unique molecular structure a crosslinking is not necessary to achieve a long term temperature stability. Coextrusion: all layers being produced simultaneously; therefore a homogeneous and very stable material bonding is created. Due to the 5 layer technology the oxygen barrier is protected from mechanical damage.

Technical data

	Werte	Norm
Thermal conductivity	0,4 W(mK)	DIN 16833
Thermal expansion coefficient	1,8 x 10 ⁻⁴ /K	DIN 52612-1
Elasticity modulus	645 MPa	ISO 178
Density	0,941 g/cm ³	ISO 1183
Ultimate tensile	37 MPa	ISO 527-2
Ultimate elongation	780,00 %	ISO 527-2
Tensile yield	20,3 MPa	ISO 527-2
Environmental stress cracking resistance	no crack	ASTM D 1693
Vicat softening point	124°C	ISO 306
Material classification	B2	DIN 4102-4
Oxygen tightness	40°C < 0,1 mg/(m ² d)	DIN 4726
	80°C < 0,34 mg/(m ² d)	DIN 4726
Working temperature for installation	-10°C to 40°C	
Min. bending radius	5x outerdiameter (5d)	

Advantages:

- oxygentight (acc. to DIN 4726)
- no corrosion and free of incrustations
- also useable at below zero temperatures
- very comfortable to install
- easy to bend
- resistant to chemicals
- resistant to temperatures
- high tensile strength

Norms:

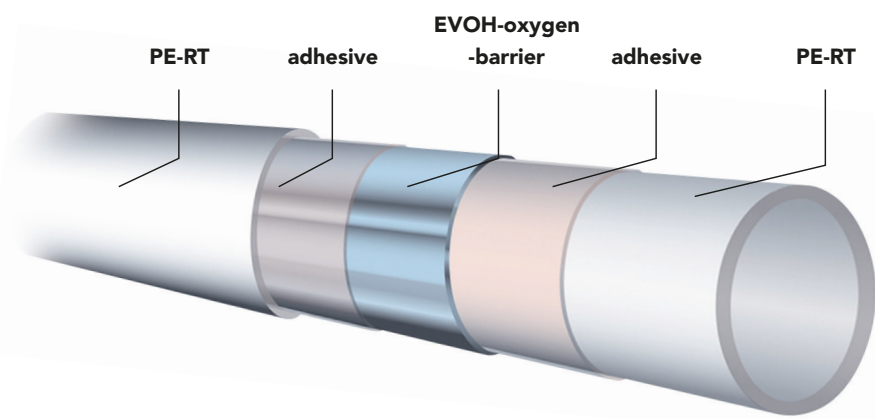
- DIN EN ISO 22391
- DIN 16833

Certifications:

- SKZ A 522
- Komo K77483

Regularly surveilled by independant test institutes!

In conjunction with a pressure test and a heating protocol we ensure a warranty period of 10 years for all MAINFLOOR PE-RT pipes.



Application

- for heating installations, acc. DIN EN 12831 e.g. Radiator Connection
- for surface heating, acc. DIN EN 18560 and 1264 e.g. Underfloor Heating
- industrial floor heating and thermal activation of concrete construction elements
- surface heating (ice free installations)
- special applications
- length of coil: 200m, 300m, 500m and 600m
- for all sizes eurocone connectors are available (except 25 x 2,3)
- additionally radial press connectors for the sizes 16 and 20
- axial press connectors (sliding sleeve) for sizes 16, 17 and 20 are deliverable
- pipes need to be protected from Radiation (sunlight) and mechanical damage
- working temperatures for installation: -10°C to 40°C

Dimension	Code	Coil (m)	Packaging	Purchasing unit (m)
10 x 1,3	501.000.312.00	200	plastic bag	3.000
14 x 2,0	501.400.346.00	600	plastic bag	3.600
16 x 2,0	501.600.343.00	300	plastic bag	3.000
16 x 2,0	501.600.346.00	600	plastic bag	3.600
17 x 2,0	501.700.343.00	300	plastic bag	3.000
17 x 2,0	501.700.346.00	600	plastic bag	3.600
18 x 2,0	501.800.343.00	300	plastic bag	2.100
18 x 2,0	501.800.345.00	500	plastic bag	3.000
20 x 2,0	502.000.343.00	300	plastic bag	2.700
20 x 2,0	502.000.345.00	500	plastic bag	3.000
25 x 2,3	502.500.343.00	300	plastic bag	2.100

Application Conditions

Dimension (mm)	Class 4		Class 5	
	T _{max} [°C]	Pressure [bar]	T _{max} [°C]	Pressure [bar]
10 x 1,3	70	8	90	6
14 x 2,0	70	10	90	6
16 x 2,0	70	8	90	6
17 x 2,0	70	8	90	6
18 x 2,0	70	6	90	4
20 x 2,0	70	6	90	4
25 x 2,3	70	6	90	4