



PE-RT/AL/PE-RT

Multilayer pipe

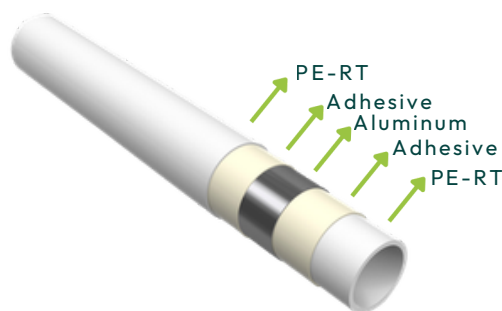
Physical Properties

Material	High temperature resistant polyethylene (PE-RT)
Density	$\geq 0.941 \text{ g/cm}^3$
*O ₂ permeability at 40°C	$< 0.0010 \text{ g/m}^3\cdot\text{d}$
Roughness	0.007 mm
Tensile resistant adhesive layer	$\geq 25 \text{ N/cm}$
Oxidation Induction Time (OIT)	$\geq 30 \text{ min}$

(*) (DIN 4726 – meets the requirement of $< 0.1 \text{ g/m}^2\cdot\text{day}$)

Thermal Properties

Working temperature range according Standard: EN ISO 21003	20 °C to 90 °C
Operating Temperature Range	-20 °C to 95 °C
Thermal conductivity	0.43 W/m*K
Coefficient of thermal expansion	0.025 mm/m*K
Heat reversal (120°C, 1 hour)	$\leq 3.0 \%$



Dimensions

Description (mm)	m/roll	m/bar	Diameter tolerance (mm)	Thickness tolerance (mm)	Capacity (l/m)	Weight (kg/m)	Minimum manual curvature radius (mm)	Minimum radius of curvature With internal spring (mm)
16 x 2.0	10 – 500	4	16 – 16.30	1.90 – 2.30	0.113	0.106	80	60
18 x 2.0	10 – 500	4	16 – 16.30	1.90 – 2.30	0.154	0.121	90	70
20 x 2.0	10 – 500	4	20 – 20.30	1.90 – 2.30	0.201	0.135	100	80
20 x 2.25	10 – 500	4	20 – 20.30	2.25 – 2.65	0.189	0.151	100	95
25 x 2.50	15 – 100	4	25 – 25.30	2.30 – 2.80	0.314	0.214	125	100
26 x 3.0	25 – 100	4	26 – 26.30	2.80 – 3.40	0.314	0.253	130	100
32 x 3.0	25 – 100	4	32 – 32.30	2.80 – 3.40	0.531	0.320	160	130
40 x 4.0	--	4	40 – 40.40	3.80 – 4.40	0.804	0.529	----	----
50 x 4.50	--	4	50 – 50.50	4.30 – 5.0	1.320	0.753	----	----
63 x 6.0	--	4	63 – 63.60	5.70 – 6.50	1.810	1.191	----	----

Other dimensions and colours are available under request

Certifications

- AENOR (Spain)
- KIWA (Netherlands)
- SKZ (Germany)
- WRAS (United Kingdom)
- AFNOR (France)
- CSTB (France)

Standard

- EN ISO 21003

Applications

- Underfloor heating
- Cooling systems
- Industrial facilities
- Snow and ice removal systems on surfaces
- Surface heating/cooling (floor, wall and ceiling)

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Classification according to service conditions

Class	Temperatures	Design temperature	Malfunction temperature	Applications
1	+ 60°C - 49 years	80°C - 1 year	95°C - 100 h	Hot water supply
2	+ 70°C - 49 years	80°C - 1 year	95°C - 100 h	Hot and cold water distribution
4	+ 20°C - 2.5 years	70°C - 2.5 years	100°C - 100 h	Underfloor heating and low temperature radiators
	+ 40°C - 20 years			
	+ 60°C - 25 years			
5	+ 20°C - 14 years	90°C - 1 year	100°C - 100 h	High temperature radiators
	+ 60°C - 25 years			
	+ 80°C - 10 years			

All systems that satisfy the conditions specified in the table must be suitable for the conduction of cold water for 50 years at a temperature of 20 °C and a design pressure of 10 bar.

Each country can choose between class 1 or class 2 according to its national regulations.

