

## PE-RT

### Product Characteristics

#### Physical characteristics

Characteristic	Value	Unit
Density	> 941	Kg/m <sup>3</sup>
Roughness	0.007	mm

#### Mechanical characteristics

Characteristic	Value	Unit
Tensile resistance	> 22	N/mm <sup>2</sup>
Elongation at break	> 400	%
Internal pressure resistance s=9.9 Mpa, 20°C	> 1	Hours
Internal pressure resistance s=3.9 Mpa, 95°C	> 22	Hours
Internal pressure resistance s=3.7 Mpa, 95°C	> 165	Hours
Internal pressure resistance s=3.5 Mpa, 95°C	> 1000	Hours
Internal pressure resistance s=1.9 Mpa, 110°C	> 1	Year

#### Thermal characteristics

Characteristic	Value	Unit
Maximum service temperature	95	°C
Maximum high temperature	110	°C
Heat reversion 120°C heat; 1 hour	< 2.0	%
Thermal expansion coefficient	1.8	10 <sup>-4</sup> /K
Thermal conductivity at 60°C	0.4	W/m K
VICAT softening point	124.7	°C
Oxidation induction time (OIT)	> 40	Min
Permeability O <sub>2</sub> at 40°C	< 0.1	g/m <sup>3</sup> d

#### Classification of service conditions

Application class	Main function	Class of temperature	Temperature (°C)	Time (years)
1	Hot water (60°)	Temperature of design	60	49
		Temperature max.	80	1
		Temperature malfunction	95	0.0114
2	Hot water (70°)	Temperature of design	70	49
		Temperature max.	80	1
		Temperature malfunction	95	0.0114
4	Underfloor heating and low temperature radiators	Temperature of design	20	2.5
		Temperature of design	40	20
		Temperature of design	60	25
		Temperature max.	70	2.5
		Temperature malfunction	100	0.0114
5	High temperature radiators	Temperature of design	20	14
		Temperature of design	60	25
		Temperature of design	80	10
		Temperature max.	90	1
		Temperature malfunction	100	0.0114