

## PEX-a

### Product Characteristics

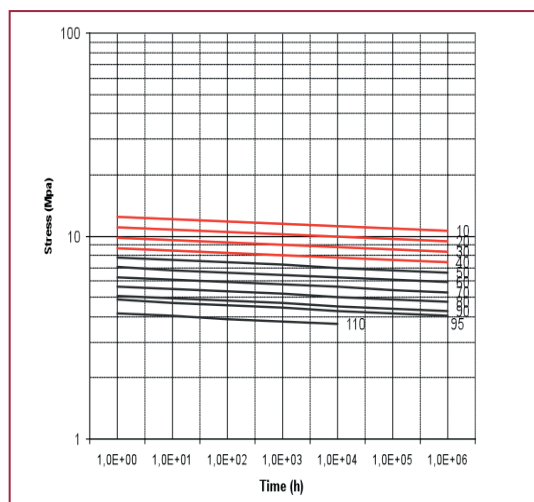
#### Physical characteristics

Characteristic	Value	Unit
Density	951	Kg/m <sup>3</sup>
Crosslinking degree	>70	% weight
Roughness	0.007	mm
Weight	96	g/m
Volume	0.13	l/m

#### Thermal characteristics

Characteristic	Value	Unit
Maximum service temperature	95	°C
Maximum high temperature	110	°C
Heat reversion 120°C heat; 1 hour	<2.5	%
Specific heat at 23°C	2.3	KJ/kg·K
Thermal conductivity	0.35 – 0.38	W/ m·K
VICAT temperature	130 - 132	°C
Permeability O2	0.08	g/m <sup>3</sup> d
Lineal extension coefficient	0.026	mm/m°K

#### Regression curves PEX-a



#### Mechanical characteristics

Characteristic	Value	Unit
Tensile resistance	>22	N/mm <sup>2</sup>
Elongation at break	>400	%
Modulus of elasticity at 20°C	>800	N/mm <sup>2</sup>
Internal pressure resistance s=4.8 Mpa, 95°C	>1	Hours
Internal pressure resistance s=4.7 Mpa, 95°C	>22	Hours
Internal pressure resistance s=4.6 Mpa, 95°C	>165	Hours
Internal pressure resistance s=4.4 Mpa, 95°C	>1000	Hours
Internal pressure resistance s=2.5 Mpa, 110°C	>1	Year

#### 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