

PEXb Piping Systems

For the finest heating systems

With continuous operating temperature of maximum 70°C (instantaneous maximum 95°C) operating pressure maximum 10 bar (1 MPa)

Benefits

- Easy installation
- Optimum strength
- Improved flexibility
- Very smooth surface
- Lightweight, easy to transport
- Long-term hydrostatic strength
- Advanced temperature and pressure capabilities



Novatherm Pex-b pipes are manufactured from cross-linked polyethylene with advanced polymeric structure which makes them the best solution for a wide range of liquid transportation. The advantages of **Novatherm Pex-b** over other plastic and metal piping systems, such as very high operation temperatures, non-corrosiveness, flexibility, higher impact strength at lower temperatures and speed of installation, are considered the main reasons for being preferred by engineers for residential and industrial projects. **Novatherm Pex-b** pipes are manufactured in 16mm, 20mm, 25mm and 32mm diameters according to DIN 16893 and EN ISO 15875-2 standards.

SERVICE LIFE

Temperature	Service Life Year	DIN 16893 PEX PIPING SYSTEMS (Hot and Cold Water)		
		Safety Factor 1.5		
		SDR 11 PN 12.5	SDR 9 PN 16	SDR 7.4 PN 20
		Allowable Working Pressure (bar)		
20°C	1	13.2	16.6	20.9
	5	12.9	16.3	20.5
	10	12.8	16.2	20.4
	25	12.7	16.0	20.1
	50	12.6	15.9	20.0
30°C	1	11.7	14.7	18.5
	5	11.5	14.4	18.2
	10	11.4	14.3	18.1
	25	11.3	14.2	17.9
	50	11.2	14.0	17.7
40°C	1	10.4	13.1	16.5
	5	10.2	12.8	16.2
	10	10.1	12.7	16.1
	25	10.0	12.6	15.9
	50	9.9	12.5	15.7
50°C	1	9.3	11.7	14.7
	5	9.1	11.4	14.4
	10	9.0	11.3	14.3
	25	8.9	11.2	14.1
	50	8.8	11.1	14.0
60°C	1	8.3	10.4	13.1
	5	8.1	10.2	12.9
	10	8.0	10.1	12.8
	25	7.9	10.0	12.6
	50	7.9	9.9	12.5
70°C	1	7.4	9.3	11.8
	5	7.3	9.1	11.5
	10	7.2	9.1	11.4
	25	7.1	9.0	11.3
	50	7.0	8.9	11.2
80°C	1	6.6	8.4	10.5
	5	6.5	8.2	10.3
	10	6.4	8.1	10.2
	25	6.4	8.0	10.1
90°C	1	6.0	7.5	9.5
	5	5.8	7.4	9.3
	10	5.8	7.3	9.2
95°C	1	5.7	7.1	9.1
	5	5.5	7.0	8.8

PROPERTIES

OD, Outer Diameter (mm)	S, Wall Thickness (mm)	Standard Dimension Ratio	Nominal Pressure	Class of NOVATHERM PEX Pipes	Length / Coil (m)	Oxygen Permeability Ratio (mg.O ₂ /m ² day<0,1 µg O ₂ / liter
16	2.0	SDR 9	PN 16	1/8; 2/8; 4/10; 5/8	160, 200, 400, 500, 600	≤ 0.32
	2.2	SDR 7.4	PN 20	1/10; 2/10; 4/10; 5/8		
17	2.0	SDR 8.5	PN 16	1/8; 2/8; 4/10; 5/8	160, 200, 400, 500, 600	≤ 0.32
20	2.0	SDR 11	PN 12.5	1/6; 2/6; 4/8; 5/6	160, 200, 400, 500	≤ 0.32
	2.8	SDR 7.4	PN 20	1/10; 2/10; 4/10; 5/10		
25	2.3	SDR 11	PN 12.5	1/6; 2/6; 4/8; 5/6	160, 200	≤ 0.32
32	2.9	SDR 11	PN 12.5	1/6; 2/6; 4/8; 5/6	160, 200	≤ 0.32

Features	Test Method	Unit	Value
Density	DIN 53 497	g/cm ³	0.94
Linear Expansion Coefficient	DIN 53 752	K ⁻¹	2x10 ⁻⁴
Thermal Conductivity	DIN 52 612-1	WK ⁻¹ m ⁻¹	0.41
Elastic Modulus	ASTM D790	N/mm ²	600
Surface Resistance	DIN 53482	W	>10 ¹²
Elongation at Break	ASTM D638	%	400
Impact Strength	DIN 53453	m.J.mm ²	No cracking
Degree of Cross-Linking	DIN 16892	%	Min.65

