

OXY-PEX Piping Systems (O₂ Barrier)

For the finest heating systems

Cross-linked polyethylene with advanced polymeric structure 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



All hydraulic heating and cooling systems are susceptible to oxygen diffusion through various parts; such as boilers, pumps threaded fittings and other gas permeable materials. Excess amounts of oxygen in a system can lead to early failure of metal components due to corrosion. **Novatherm OXYPEX** Pipe fulfills the German DIN 4726 Standard, **Novatherm OXYPEX** Pipe considerably reduces oxygen penetration into the system.

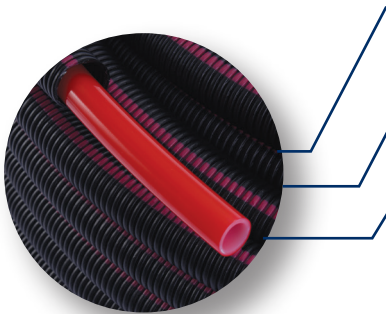
SERVICE LIFE

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



Ethylene Vinyl Alcohol ("EVOH") Oxygen Barrier with excellent gas barrier properties that limits oxygen diffusion through the walls of the tubing.

Designed to be compatible with PEX and EVOH layers and creates a superb adhesion between layers

A high-temperature flexible plastic pressure pipe with a 35 year history of successful use in the European market with extensive testing for durability and material performance, made of cross-linked high density PEX .