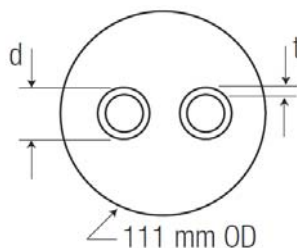


PRODUCT SUBMITTAL 135

Product: OWB Insulated Pipe with RAUTHERM™ Pipe SDR 11

Date: 18 December 2014 (supersedes 04 November 2013)



Article No.	Description	PEXa Carrier Pipe			Outer Jacket		OWB
		d (avg) in (mm)	t (min) in (mm)	Capacity gal/ft (l/m)	Outer Diameter in (mm)	Wall Thickness in (mm)	Weight lb/ft (kg/m)
730033-001	(2) 32 mm OWB Insulated RAUTHERM Pipe	1.266 (32.2)	0.114 (2.9)	2 x 0.0434 (2 x 0.539)	4.375 (111)	0.094 (2.4)	1.26 (1.86)

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TECHNICAL DESCRIPTION (BY COMPONENT)

Component	Specification	English	SI	Standard	Component	Specification	English	SI	Standard
Carrier pipe	Minimum Density	58 lb/ft ³	926 kg/m ³	ASTM F876	Carrier pipe	Roughness	0.00028 in	0.007 mm	--
Carrier pipe	Min. Degree of Crosslinking	70%	70%	ASTM F876	Carrier pipe	Max. Short-term Exposure	87 psi @ 212°F (100 hr)	600 kPa @ 100°C (100 hr)	ISO 15875
Carrier pipe	Max. Thermal Conductivity	2.84 Btu-in/h-ft ² ·°F	0.41 W/(m K)	DIN 16892	Insulation	Max. Thermal Conductivity	0.20 Btu-in/h-ft ² ·°F (122°F)	0.029 W/(m K) @ 50°C	EN 253
Carrier pipe	IZOD Impact Resistance	No Break	No Break	--	Insulation	Closed Cellular Structure	>=90 %	>=90 %	--
Carrier pipe	Modulus of Elasticity	87,000-130,500 psi @ 68°F 43,500-58,000 psi @ 176°F	600-900 N/mm ² @ 20°C 300-400 N/mm ² @ 80°C	Minimum @ 20°C per DIN 16892	Outer Casing	LDPE with Carbon Black > 2.5% Maximum Thermal Conductivity: 3.0 Btu-in/h-ft ² ·°F (0.43 W/m·°C)			--
Carrier pipe	O ₂ Permeability	--	<=0.32 mg/m ² /day @ 40°C	DIN 4726	Outer Casing	Maximum UV Resistance	2 years	2 years	--

FUNCTIONAL DESCRIPTION

Outdoor wood boiler (OWB) insulated RAUTHERM-FW pipe is specially designed for the efficient transfer of hot water from outdoor wood boilers to residential and light commercial buildings. A flexible alternative to rigid pipe, OWB pipe offers ease of installation combined with the long-term performance of REHAU O₂ Barrier PEXa pipe for hydronic heating applications.

OWB pipe consists of two carrier pipes surrounded by a solid layer of polyurethane foam insulation and protected by a polyethylene casing. The two-pipe configuration combines supply and return pipes, streamlining installation. One of the carrier pipes is marked with a black line to differentiate supply from return. OWB pipe system is available in RAUTHERM-FW size 32 mm. OWB pipe is coiled for shipment.

LONG TERM STRENGTH

The maximum temperature and pressure ratings of the RAUTHERM pipe are according to ASTM D2837 and F2788. The designer shall determine the actual conditions and apply the appropriate and additional design factors as required for any particular project. The temperature and pressure ratings apply to the application of RAUTHERM pipe for conveying heating and cooling water at the 2.0 design coefficient on allowable working pressure. According to the REHAU *PEXa Limited Warranty*, the RAUPLEX pipe warranty period of 25 years is for operating conditions at or below 180°F (82.2°C) in permitted applications when the handling, use, installation and maintenance continually complies with all REHAU technical guidelines.

RAUTHERM SDR11

maximum pressures and temperatures

design factors (coefficients)

125 psi @ 73.4°F (860 kPa @ 23°C)	0.50 (2.0)
80 psi @ 180°F (550 kPa @ 82.2°C)	0.50 (2.0)
65 psi @ 200°F (450 kPa @ 93.3°C)*	0.50 (2.0)

* REHAU defines Elevated Temperature Applications as those with operating conditions greater than 180°F (82.2°C). When REHAU PEXa pipes are planned to be operated in Elevated Temperature Applications, contact REHAU Engineering to verify your project conditions comply with the REHAU *PEXa Limited Warranty*. The warranty period shall be determined in accordance to REHAU *Technical Bulletin TB230 Elevated Temperature Applications*.