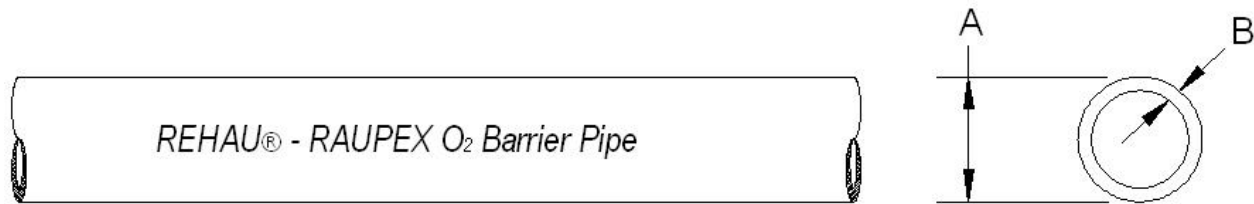


PRODUCT SUBMITTAL 102

Product: RAUPEX[®] O₂ Barrier Pipe, SDR9
Date: 31 January 2017 (supersedes 18 December 2014)



Article No.	Nominal Size in	Average OD A in (mm)	Minimum Wall Thickness B in (mm)	Weight lb/ft (kg/m)	Capacity gal/ft (l/m)	Bend Radius in (mm)
136008	3/8	0.500 (12.70)	0.070 (1.78)	0.05 (0.07)	0.0050 (0.0624)	2.50 (62.5)
136031	1/2	0.625 (15.88)	0.070 (1.78)	0.06 (0.08)	0.0098 (0.1222)	3.25 (82.5)
136880	5/8	0.750 (19.05)	0.083 (2.12)	0.08 (0.11)	0.0134 (0.1671)	3.75 (95.0)
136051	3/4	0.875 (22.22)	0.097 (2.47)	0.10 (0.15)	0.0189 (0.2356)	4.50 (113)
136011	1	1.125 (28.58)	0.125 (3.18)	0.17 (0.26)	0.0316 (0.3939)	5.75 (144)
136283	1 1/4	1.375 (34.92)	0.153 (3.88)	0.25 (0.37)	0.0467 (0.5827)	7.00 (178)
136293	1 1/2	1.625 (41.28)	0.181 (4.59)	0.35 (0.52)	0.0650 (0.8118)	8.25 (210)
136303	2	2.125 (53.98)	0.236 (6.00)	0.60 (0.90)	0.1114 (1.3906)	10.75 (273)

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TECHNICAL DESCRIPTION

Specification	English	SI	Standard	Specification	English	SI	Standard
Minimum Density	58 lb/ft ³	926 kg/m ³	ASTM F876	Tensile Strength	4194-4355 psi @ 68°F	26-30 N/mm ² @ 20°C	--
Min. Degree of Crosslinking	70%	70%	ASTM F876		2610-2900 psi @ 176°F per ASTM D638	18-20 N/mm ² @ 80°C per ASTM D638	
Max. Thermal Conductivity	2.84 Btu in./(ft ² F hr)	0.41 W/(m°C)	DIN 16892	Roughness	e=0.00028 in	e=0.007 mm	--
Coefficient of Linear Expansion	9.33X10 ⁻⁴ in/ft°F @ 68°F	0.14 mm/(m°C) @ 20°C	Mean @ 20-70°C per DIN 16892	O ₂ Permeability	--	<=0.32 mg/m ² /day @ 40°C	DIN 4726
	1.33x10 ⁻³ in/ft°F @ 212°F	0.2 mm/(m°C) @ 100°C					
IZOD Impact Res.	No Break	No Break	--	Max. Short-term Exposure	150 psig @ 210°F (48 hr)	1035 kPa @ 99°C (48 hr)	ASTM F876
Modulus of Elasticity	87,000-130,500 psi @ 68°F	600-900 N/mm ² @ 20°C	Minimum @ 20°C per DIN 16892	UV Resistance	See TB218		ASTM F2657
	43,500-58,000 psi @ 176°F	300-400 N/mm ² @ 80°C					

FUNCTIONAL DESCRIPTION

RAUPEX O₂ barrier pipe is manufactured using REHAU's high-pressure peroxide method for crosslinked polyethylene (PEXa). RAUPEX pipe meets or exceeds the requirements of ASTM F876, F877, NSF 61, CSA B137.5 and PPI TR-3. This PEXa pipe is SDR9, red in color, and is specifically designed for use with the EVERLOC+® compression-sleeve system certified to ASTM F877. See *Technical Bulletin TB261* for other compatible PEX fitting systems. RAUPEX O₂ barrier pipe has a co-extruded oxygen diffusion barrier that exceeds the strict requirements of DIN 4726. RAUPEX pipe is manufactured by REHAU using a quality management system which has been certified to the latest version of ISO 9001.

RAUPEX O₂ barrier piping is ideal for use in radiant heating/cooling, snow and ice melting, soil conditioning, geothermal ground loop heat exchange, energy transfer and outdoor wood boiler applications. RAUPEX O₂ barrier pipe is used as carrier pipe in REHAU INSULPEX® flexible, pre-insulated PEXa piping with closed-cell foam bonded insulation for buried energy transfer piping. RAUPEX O₂ barrier pipe is not to be directly buried.

LONG TERM STRENGTH

The maximum temperature and pressure ratings of the RAUPEX pipe are in accordance to ASTM F876, CSA B137.5 and PPI TR-3. 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 RAUPEX pipe for conveying heating and cooling water at the 2.0 safety factor on allowable working pressure according to ASTM and CSA. According to the REHAU *PEXa Limited Warranty*, the RAUPEX 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.

RAUPEX SDR9

maximum pressures and temperatures	design factors
160 psi @ 73.4°F (1055 kPa @ 23°C)	0.50 (per ASTM F876, CSA B137.5)
100 psi @ 180°F (690 kPa @ 82.2°C)	0.50 (per ASTM F876, CSA B137.5)
80 psi @ 200°F (550 kPa @ 93.3°C)*	0.50 (per ASTM F876, CSA B137.5)

* 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* in accordance to REHAU *Technical Bulletin TB230 Elevated Temperature Applications*.