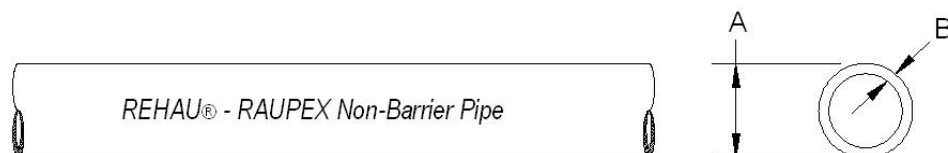


PRODUCT SUBMITTAL 100

Product: RAUPEX[®] Non-Barrier Pipe
Date: 18 December 2014 (supersedes 01 August 2013)



Article No.	Nominal Size in	Average OD (A) in (mm)	Wall Thickness (B) in (mm)	Weight lb/ft (kg/m)	Capacity gal/ft (l/m)
261683	3/8	0.500 (12.70)	0.070 (1.78)	0.04 (0.06)	0.0050 (0.0624)
261026	1/2	0.625 (15.88)	0.070 (1.78)	0.05 (0.08)	0.0098 (0.1222)
261036	5/8	0.750 (19.05)	0.083 (2.12)	0.09 (0.13)	0.0134 (0.1671)
261046*	3/4	0.875 (22.22)	0.097 (2.47)	0.10 (0.15)	0.0189 (0.2356)
261066*	1	1.125 (28.58)	0.125 (3.18)	0.17 (0.26)	0.0316 (0.3939)
261086*	1 1/4	1.375 (34.92)	0.153 (3.88)	0.25 (0.37)	0.0467 (0.5827)
261106*	1 1/2	1.625 (41.28)	0.181 (4.59)	0.35 (0.52)	0.0650 (0.8118)
138331*	2	2.125 (53.98)	0.236 (6.00)	0.60 (0.90)	0.1114 (1.3906)

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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°K)	DIN 16892	IZOD Impact Res.	No Break	No Break	--
Coefficient of Linear Expansion	9.33 x 10 ⁻⁴ in/ft°F @ 68°F	0.14 mm/(m°C) @ 20°C	Mean @ 20-70°C per DIN 16892	Roughness	e=0.00028 in	e=0.007 mm	--
	1.33 x 10 ⁻³ in/ft°F @ 212°F	0.2 mm/(m°C) @ 100°C		Temperature Working Range	-40 to 200°F	-40 to 93°C	--
Modulus of Elasticity	87,000 - 130,500 psi @ 68°F	600 - 900 N/mm ² @ 20°C	Minimum @ 20°C per DIN 16892	Max. Short-term Exposure	150 psig @ 210°F (48 hr)	1035 kPa @ 99°C (48 hr)	ASTM F876
	43,500 - 58,000 psi @ 176°F	300 - 400 N/mm ² @ 80°C		UV Resistance	See TB218		ASTM F2657

FUNCTIONAL DESCRIPTION

RAUPEX Non-Barrier pipe is manufactured using REHAU's high-pressure peroxide method for crosslinked polyethylene (PEXa). All RAUPEX Non-Barrier pipe meets or exceeds the requirements of ASTM F876, 877, CSA B137.5, PPI TR-3 and AWWA C904, and is certified to NSF Standards 14/61. RAUPEX Non-Barrier pipe also meets the requirements of NSF P171 and ASTM F2023 for chlorine resistance. RAUPEX Non-Barrier pipe is manufactured by REHAU in a plant using a quality management system that is certified to ISO 9001.

**These pipes are certified by UL to UL 1821 and by ULC to ULC-ORD C199P for NFPA 13D fire protection applications. Pipes are also UL listed in accordance with UL Standard UL 1713, "Pressure Pipe and Couplings for Underground Fire Service" and UL 1821 for "Exposed Installation Under a Smooth, Flat Ceiling".* Also can be used to meet the 2009 International Residential Code (IRC) P2904 requirements for residential fire sprinkler systems and also can be used to meet the 2009 International Residential Code (IRC) P2904 requirements for residential fire sprinkler systems.

RAUPEX Non-Barrier pipe is compatible with brass crimp ring fittings certified to ASTM F1807, RAUPEX compression nut fittings, and EVERLOC compression-sleeve fittings certified to ASTM F2080 and CSA B137.5. Use of RAUPEX Non-Barrier pipe in heating systems requires corrosion protection and/or isolation by using a heat exchanger or non-ferrous components throughout the system.

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*.