Mr PEX® Tubing – Submittal

Product Description

Mr PEX® Tubing with Oxygen Diffusion Barrier is a crosslinked Polyethylene Tubing with gel content of minimum 70% in accordance with ASTM D 2765. It is crosslinked in extrusion by the use of peroxides, a PEX-a process i accordance with ASTM F 876. It is equipped with an outside oxygen diffusion barrier made of ethylene vinyl alcohol (EVOH) in order to meet the requirements of DIN 4726 / DIN 4729 of less than 0.10 g/(sq.m. x day) at 104°F.

Nominal Size	Outside	Inside	Coil Lengths	Bend Radii	Capacity
3/8″	1/2″	0.349″	600′	2.5″	0.50 g/100 ft.
1/2″	5/8″	0.474″	300′, 500′, 1,000′, 1,200′, 1,600′	3.5″	0.92 g/100 ft.
5/8″	3/4″	0.584″	330′, 1,000′	4.5″	1.39 g/100 ft.
3/4″	7/8″	0.670″	300′, 500′	5.5″	1.83 g/100 ft.
1″	1.125″	0.867″	300′	7″	3.07 g/100 ft.

Temperature and Pressure Rating

Mr PEX® Tubing carries Standard Grade Rating (= highest possible) issued by Plastics Pipe Institute as follows:
73.4°F: 160 psi | 180°F: 100 psi | 200°F: 80 psi

Fittings

Mr PEX® Tubing is connected using Mr PEX® Compression Fittings consisting of a Nut, a Compression Ring, and an Insert. These fittings are certified by NSF International (NSF-rfh) to meet requirements of ASTM F 877.

Listing, Standards

ASTM: Mr PEX® Tubing is certified to meet ASTM F 876 and 877.
PPI: Mr PEX® Tubing is temperature and pressure rated by Plastics Pipes Institute—Standard Grade Rating.
NSF: Mr PEX® Tubing is certified by NSF International for Radiant Floor Heating Systems (NSFrfh).
CSA: Mr PEX® Tubing is manufactured to CSA B 137.5.
ICBO: ICBO-ES listing is pending.

Manifolds

Mr PEX® Tubing, when used for Radiant Floor Heating and Snowmelt Systems, are hooked up to Mr PEX Manifolds available in Supply, Return, and Basic versions as described in separate information.

Design, Installation

Mr PEX® Tubing shall be installed in accordance with Radiant Panel Association Installation Guidelines. Installed Tubing must be pressure tested in accordance with local codes before enclosure.

Mr PEX® Tubing radiant systems shall be designed utilizing Mr PEX Radiant Design Software.

Do not allow water in embedded Tubing to freeze. Limit exposure to direct sunlight (max 2–3 weeks).

There are several tools & accessories available for simplifying installations. Please refer to “Mr PEX® Parts” and “Radiant Benefits” informational leaflets.

Limited Warranty: 25 years (refer to detailed warranty text).

2613–87th Court W., Northfield, MN 55057
toll free **800-716-3406** | *local* **952-652-2472** | *fax* **952-652-2378**

Mr PEX® SYSTEMS

PEX Property Comparisons

Property	Mr PEX® Tubing	Traditional PEX-a	PEX-b and PEX-c
Flexibility	Considerable more flexible than any other PEX tubing	Somewhat better flexibility than Radiation and Silane crosslinked tubing.	Stiffer to work with
Strength	Withstands somewhat higher inside pressures than other PEX Tubing	Meets ASTM	Meets ASTM
Homogeneity	Excellent	Not very good. Worse than Radiation & Silane.	Good
Thermal Memory	Excellent	Good. Better than Radiation & Silane.	Strength decreases after heated up to transparency.
Kink Repairability	Excellent	Excellent	See above
Kinking Resistance	Excellent	Fair. Better than Radiation and Silane.	More vulnerable to be kinked
Barrier Property	Measured 25 times better than DIN 4726	Meeting DIN 4726	Meeting DIN 4726
Thermostability	Excellent	Better than ASTM requirements	PEX-c: Better than ASTM equirements. PEX-b: Silane cross-links are reversible
Crosslinking Distribution	Excellent	Fair	PEX-c: x-link gradients PEX-b: Manufacturer dependent
Memory Of Being Coiled	Very Little. Easy to bend in any direction.	Fair. Better than Radiation and Silane.	Tougher to straighten out.
Minimum Bending Radius	Narrower than any other PEX tubing	Fair. Better than Radiation and Silane.	Largest
Crack Propagation	Excellent	Excellent	PEX-c: Fatigue cracks can develop PEX-b: Unknown
Density	~0.930 - the lowest	~0.938 - much more	~0.941 - highest
State When Crosslinked	Melted	Melted	Not melted
Crystal Size & Distribution	Small and even	Fair	Larger and more un-even
Degree Of Crosslinking	Over 70%	Over 70%	Typically below 70% (but approved for that in ASTM)
Process Uniqueness	There is just one manufacturer	Several manufacturers - not unique	Available to anyone
Commercial Dependence	None	Uponor dominates	Uponor dominates

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