

ZURN® *PEX Radiant Systems*

hy-PE-RTube™ Radiant Tubing

Five Layer PE-RT Tube with Oxygen Barrier



Made in the U.S.A.

□ Zurn PEX[®] Radiant Systems



Zurn PEX in collaboration with DOW is proud to offer hy-PE-RTube™, made in the USA using DOWLEX 2344™ Polyethylene Resin, which offers the traditional benefits of polyethylene resin along with excellent high temperature resistance. DOWLEX 2344 Polyethylene Resin delivers long-term hydrostatic design strength at elevated temperatures, without the need for cross linking. This process increases the tubing flexibility, resulting in potential installation benefits and labor savings. hy-PE-RTube is suitable for a full range of radiant applications in residential, commercial, and industrial installations.

Features:

- Reduced coil memory
- Internal oxygen barrier
- Qickcoil[®] packaging
- Integral uncoiler

Benefits:

- Environmentally Friendly: hy-PE-RTube is recyclable. It can be reground and remolded into other durable products. PE-RT pipe uses less energy during production than other pipe manufacturing processes, as it requires no post-curing and less overall handling of the product.
- Flexibility: hy-PE-RTube saves you time and money even at low temperatures, which improves installation efficiencies.
- Smoothness: hy-PE-RTube reduces pressure loss and deposit formations because of the surface smoothness produced from using state of the art equipment.

Applications:

- Radiant floor heating systems
- Radiator connections
- Baseboard hot water connections
- Snow melt applications
- Thermal Track[®]
- Radiant cooling
- Agricultural heating
- Turf conditioning



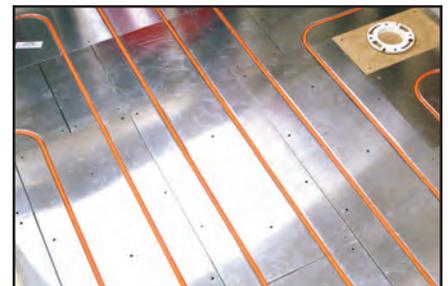
Residential Heating



Turf Conditioning

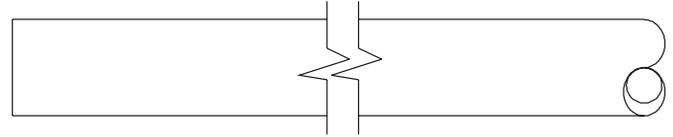
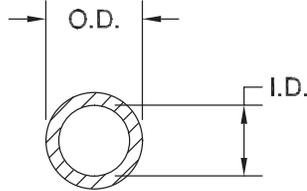


Snow Melt Installation



Restroom Heating

Zurn PEX[®] Radiant Systems



ENGINEERING SPECIFICATION: Zurn Pex hy-PE-RTube™ Radiant Barrier tube is produced from Dow's Dowlex 2344 PE-RT material. It may be used in residential and commercial hydronic heating and cooling projects that are within its pressure/temperature limitations. It has an oxygen barrier layer in the middle of the wall of the tube to reduce the oxygen permeation of the tube to less than the maximum specified in DIN4726: 200 PSI @ 73°F, 100 PSI @ 180°F.

Zurn PEX Product Number	Tube Size	Avg. O.D.	Avg. I.D.	Min. Wall	Weight per 100 ft. (lbs.)	Avg. Fluid Cap Gallons per ft.
QHR2P_PX	3/8"	.500"	.360"	.070"	3.90	0.0053
QHR3P_PX	1/2"	.625"	.485"	.070"	5.00	0.0096
QHRJP_PX	5/8"	.750"	.584"	.083"	7.10	0.0139
QHR4P_PX	3/4"	.875"	.681"	.097"	9.70	0.0189
QHR5P_PX	1"	1.125"	.875"	.125"	16.00	0.0312

The five-layer pipe construction of hy-PE-RTube provides the outstanding long term hydrostatic design strength demanded by hydronic heating applications. The five layers consist of a layer of ethylene vinyl alcohol polymer (EVOH) sandwiched between two layers of adhesive and two layers of polyethylene copolymer resin.

The outer layer of DOWLEX 2344 Polyethylene Resin provides a protective shield for the oxygen barrier ensuring that it remains intact. Ultimately this provides the radiant heat system with increased protection against oxidation due to piping permeation, safeguarding your system.

hy-PE-RTube pairs with Zurn PEX radiant systems consisting of Zurn PEX XL brass fittings, the patented QickClamp[®], the copper crimp ring and stainless steel clamp systems, as well as additional Zurn PEX components such as the Qickzone[®] and Accuflow[®] manifolds, and the pipe uncoiler.

Specifications:

Dimensions and Tolerances: hy-PE-RTube is manufactured and tested according to the guidelines set forth in ASTM F2623.

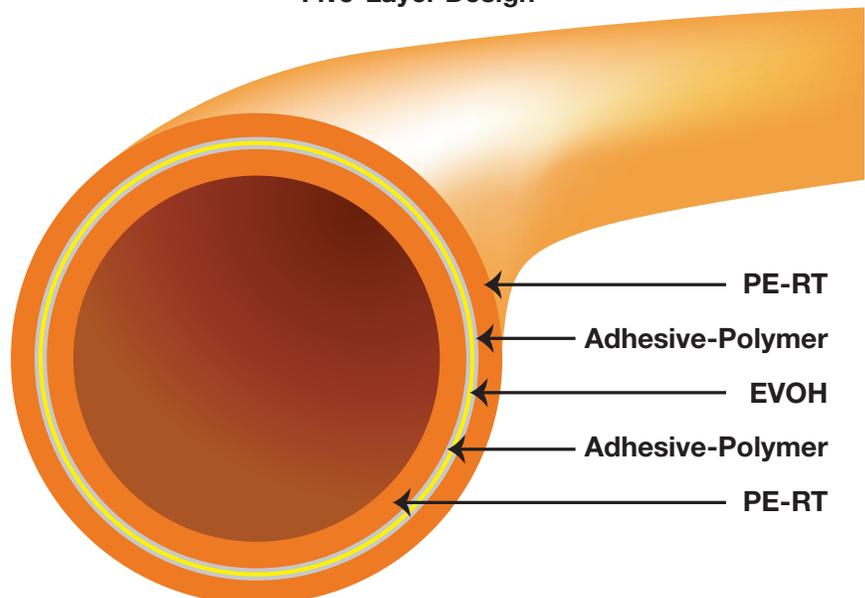
Joining: hy-PE-RTube can be joined using insert fitting and clamps certified to ASTM F1807 and ASTM F2098.

Oxygen Diffusion Standard: hy-PE-RTube's oxygen barrier layer reduces the oxygen permeation to less than the maximum limit specified in DIN 4726.

Maximum Operating Temperature and Pressure: 200PSI @ 73°F and 100PSI @ 180°F.

25-year warranty.

Zurn PEX[®] hy-PE-RTube™ Five-Layer Design



Zurn PEX[®] Radiant Systems

Main Characteristics:

DOWLEX™ 2344 Polyethylene Resin is an ethylene-octene copolymer, produced in the proprietary solution process of The Dow Chemical Company. It has a unique molecular structure with a controlled side chain distribution, which provides excellent stress crack resistance properties combined with very good long term hydrostatic strength.

Properties ⁽¹⁾			S.I.
Physical	Test Method	Unit	Values
Melt Index, 190°C/2.16 kg	ISO 1133	g/10 min	0.7
Melt Index, 190°C/5 kg	ISO 1133	g/10 min	2.2
Density	ISO 1133	g/cm ³	0.933
Vicat Softening Point	ISO 306	°C	122
Thermal Conductivity at 60°C	DIN 52612-1	W/(m K)	0.4
Thermal Expansion Coefficient	DIN 53752 A (20°C to 70°C)	10 ⁻⁴ /K	1.95
Mechanical ^(1,2)			
Hardness, Shore D	ISO 868	-	53
Tensile Yield ⁽³⁾	ISO 527-2	MPa	16.5
Tensile Yield Elongation ⁽³⁾	ISO 527-2	%	13
Ultimate Tensile ⁽³⁾	ISO 527-2	MPa	34
Ultimate Elongation ⁽³⁾	ISO 527-2	%	>800
Flexural Modulus	ISO 178	MPa	550
Elastic Modulus	ISO 527-2	MPa	580
ESCR, 50°C, 10% Antharox	ISO 180	kJ/m ²	>8760

⁽¹⁾ These are typical properties only and are not to be regarded as sales specifications. Users should confirm results by their own tests.

⁽²⁾ Compression molded samples (2 mm thick).

⁽³⁾ Crosshead speed 50 mm/min.

Customer Service Representatives are available
Monday through Friday, 8:30 a.m. to 8:00 p.m. EST.
800-877-7277 • Email: pexcs@zurn.com • www.zurnpex.com



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