Hydronic Alternatives™

PEOC Plus pipe Specifications

Applications:

Pipes for hot and cold water non-potable systems, e.g.:

- radiator connections
- heating / cooling applications

Pipe Dimensions and Tolerances

Outside Diameter (O.D.), Inside Diameter (I.D.) and Wall Thickness (W.T.)
SDR according to ASTM Standard F876-04

Tube	O.D	W.T	I.D.	Weight	Water Content
	Nominal dimension				
	in inch			in lb/ft	in gal/ft
5/16”	0.430	0.064	0.302	0.030	0.0037
3/8”	0.500	0.070	0.360	0.039	0.0053
1/2”	0.625	0.070	0.485	0.050	0.0096
5/8”	0.750	0.083	0.584	0.071	0.0139
3/4”	0.875	0.097	0.681	0.097	0.0189
1”	1.125	0.125	0.875	0.160	0.0312
	in mm			kg/m	in l/m
5/16”	10.92	1.63	7.66	0.045	0.0461
3/8”	12.70	1.78	9.14	0.057	0.0656
1/2”	15.88	1.78	12.32	0.074	0.1192
5/8”	19.05	2.11	14.83	0.106	0.1727
3/4”	22.23	2.46	17.31	0.144	0.2353
1”	28.58	3.18	22.22	0.239	0.3878

Material

PE-RT Polyethylene Resin is an ethylene / octene-1 copolymer produced in a proprietary solution process. It has a unique molecular structure with a controlled side chain distribution, which provides excellent stress crack resistance properties combined with outstanding Long Term Hydrostatic Strength. PE RT conforms to ASTM F-2623

Maximum Operating Temperature and Pressure:

200°F at 80 psi
180°F at 100 psi
86°F at 160 psi

Oxygen Diffusion Standard: DIN 4726

Chemical Tubing Resistance Chart:

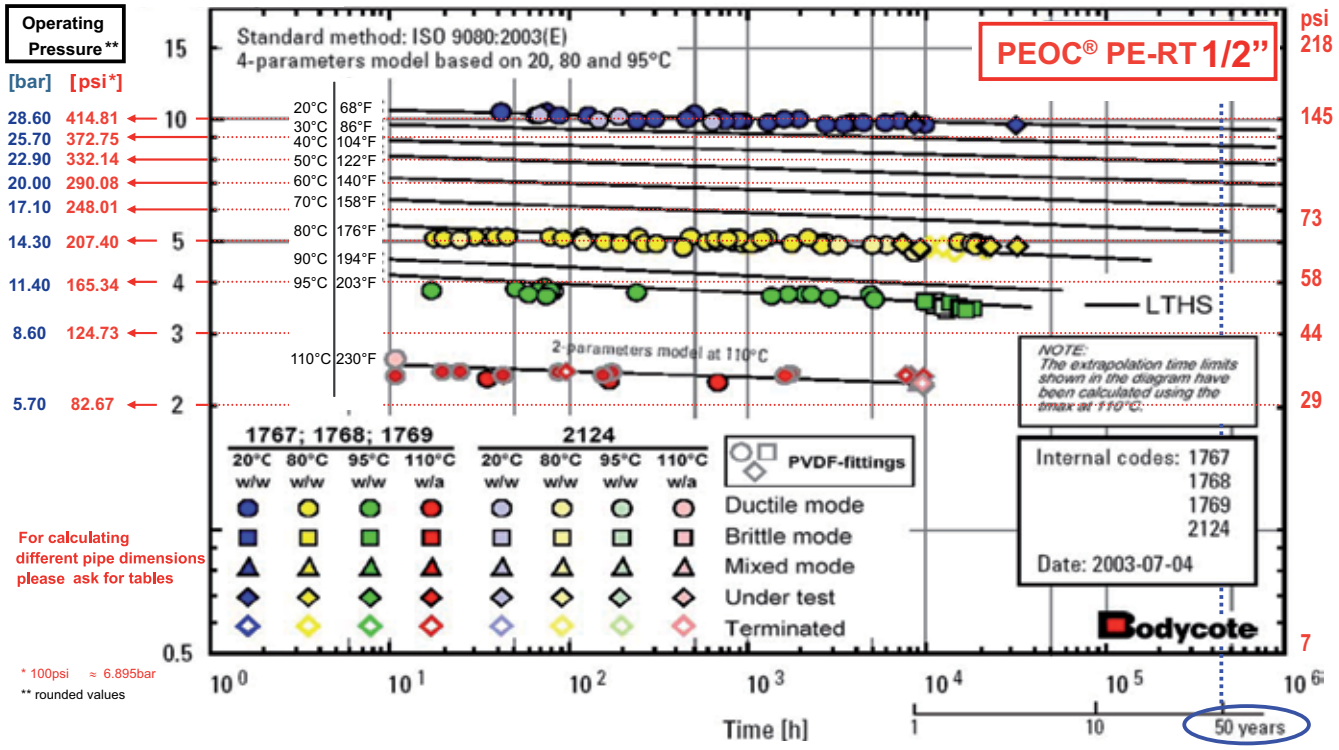
DIN 8075 Standard

Warranty:

30 year replacement warranty covering manufacturer related tubing defect. 10 year pre-paid liability insurance policy covering $ 5,000,000.00 of repair due to consequential damage, single occurrence, related to manufacturers defect.

Continuous Pipe Dimension Production Testing

By laser sensors and ultra sound.
Regular manual testing during the pipe extrusion and coiling procedure.



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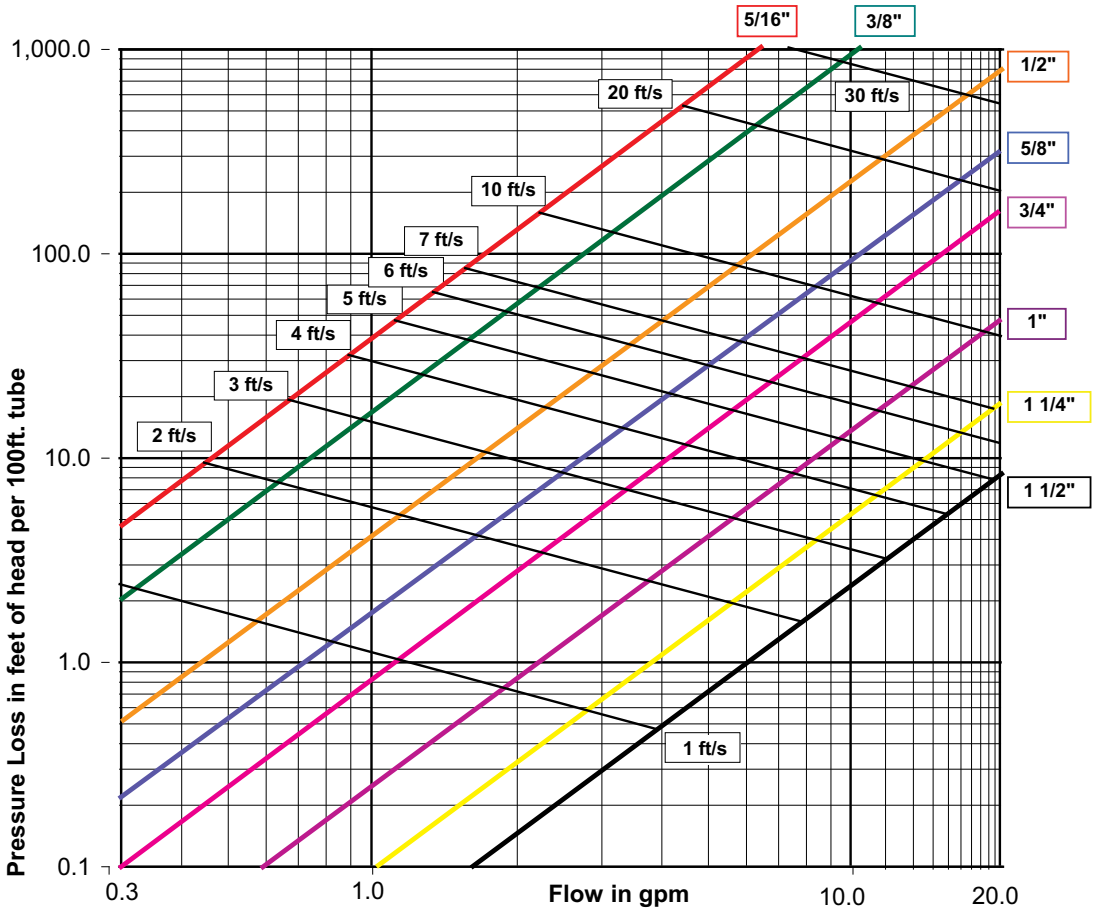
Technical Specifications

Physical Properties	Unit	Test Method	Values
Density	lb/ft³	ASTM D-792	58.745
Thermal Conductivity at 140°F	Btu/(h.ft².°F/in	DIN 52612-1	2.7734
Thermal Expansion Coefficient °F (68°F to 158°F)		DIN 5375	0.0000394
Oxygen Diffusion Rate with O2 Barrier at 100°F	mg/in² ×24h	DIN 4726	better than 0.0002
Oxygen Diffusion Rate with O2 Barrier at 180°F	mg/in² ×24h	DIN 4726	better than 0.00004
Mechanical Properties	**Unit**	**Test Method**	**Values**
Tensile Yield	psi	ISO 527-2	2,988
Ultimate Tensile	psi	ISO 527-2	5,221
Percentage of Elongation	%	ISO 527-2	760
Modulus of Elasticity	psi	ISO 178	138,511
PE RT conforms to ASTM F-2623			

Pressure Drop Chart PEOC-PLUS Pipes



Combustibility

Polyethylene resins will burn when supplied with adequate amounts of heat and oxygen.
They should be handled and stored away from contact with direct flames and/or other ignition sources. In burning, polyethylene resins contribute high heat and may generate a dense black smoke. Fires can be extinguished by conventional means with water fog preferred. In enclosed areas, fire fighters should be provided with self-contained breathing apparatus.

Recycling

Polyethylene resins can be recycled. Production rejects and/or conversion waste should preferably be recycled instead of being disposed of.

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