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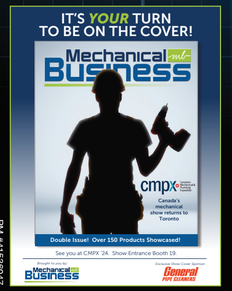

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Flexibility and Durability: Advantages of PE-RT Tubing Over PEX for Potable Water and Hydronics

The Evolution from PEX to PE-RT

Polyethylene of Raised Temperature Resistance (PE-RT) tubing is growing in popularity as an option for potable water and hydronic heating systems across North America, presenting advantages over its counterpart, Crosslinked Polyethylene (PEX). The benefits of PE-RT tubing extend to both installers and building owners, making it a preferred option for a variety of applications.

One of the primary advantages of PE-RT tubing when compared to PEX is its increased temperature resistance. PE-RT can withstand higher temperatures, making it a reliable choice for both potable water and hydronic systems. This feature ensures durability and longevity, allowing the tubing to maintain structural integrity and performance in demanding conditions. In contrast, PEX may experience degradation when exposed to high temperatures, limiting its application.

PE-RT tubing also excels in flexibility, with relaxed memory you'll experience less spring back, providing a more user-friendly option for installers. The tubing's increased flexibility simplifies the installation process, allowing for easier routing through tight spaces and around obstacles. This flexibility reduces "kinks" due to tight bends and the need for additional fittings and joints, minimizing the potential for leaks and enhancing the overall efficiency of the installation. Installers benefit from a more streamlined and efficient process, saving time and labour costs.

For building owners, the advantages of choosing PE-RT tubing over PEX translates to long-term reliability and reduced maintenance costs. The resistance of PE-RT to corrosion and scaling ensures clean and safe potable water, promoting the health and well-being of occupants. Additionally, in hydronic heating systems, PE-RT tubing contributes to energy efficiency, lowering operational costs over the system's lifespan.

In conclusion, the use of PE-RT tubing, which is the evolution of PEX tubing, for potable water and hydronics offers superior temperature resistance, flexibility, and durability. Installers benefit from ease of installation, and building owners enjoy a reliable and cost-effective solution for their water and heating systems, making PE-RT tubing a preferred choice in the construction industry.

Overview

PE-RT is a high-temperature flexible plastic pressure pipe with a 35-year history of successful use in the European market with extensive testing for durability and material performance. It was first introduced in North America in 2003 and is used in aluminum composite (multilayer) barrier tubing and solid wall tubing and pipe. Applications include plumbing, water service, hydronic heating and cooling, snow and ice melting and ground source geothermal piping systems.[1]

Unlike a crosslinked material (PEX), PE-RT is 100% recyclable, making HYPERTHERM™ PE-RT the sustainable choice in plumbing pipe.[2] This means that leftover pieces of PE-RT tubing on job sites can be recycled as can production waste at the manufacturing plant, resulting in a much more environmentally friendly solution.

PE-RT Advantages[3]

- **Safety of potable water and long-term reliability**
- **Resistance to corrosion, tuberculation, deposits**
- **Chlorine and chloramine resistance**
- **Flexibility to speed installations**
- **Freeze-break resistance**
- **Lightweight, easy to transport**
- **Noise and water hammer resistance**
- **Low scrap value, avoiding jobsite theft**
- **Durability and toughness to survive jobsite installations**
- **No flame used for joining, with many fitting and joining options**
- **Heat Fusible for virtually leak-free performance**
- **Recyclable, eco-friendly material**

Sources:
[1] PE-RT Overview; Plastic Pipe Institute (PPI); https://plasticpipe.org/BuildingConstruction/BuildingConstruction/PE-RT.aspx
[2] Dow; A Pipe's Dream: Why choose PE-RT for Plumbing pipe?;Document Viewer | Dow Inc.
[3] Plastic Pipe Institute (PPI), PE-RT Advantages; https://plasticpipe.org/BuildingConstruction/BuildingConstruction/PE-RT.aspx
The information presented in this article was compiled based on discussions with various colleagues and research conducted online.
Any resemblance to existing articles is purely coincidental.

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For more information on PE-RT and its advantages , please visit us at **cbsupplies.ca**