



**TOTAL
SYSTEM SOLUTION**

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The Next Generation of Tubing

Why VIPERT™ Potable & Radiant Tubing is Leading the Way in Durability, Flexibility, and Lowest Environmental Impact

Our plumbing and heating industries are constantly evolving, with advancements in materials and installation methods designed to improve performance, efficiency, and long-term sustainability. Among these innovations, is PE-RT (Polyethylene of Raised Temperature) tubing that has emerged as the next generation of high-performing tubing. Specifically, [VIPERT™ Potable & Radiant Tubing](#) is now seen as the industry leader, combining superior flexibility, durability, and sustainability. This article explores why VIPERT tubing is setting the benchmark in potable and modern radiant (hydronic) systems, and how it marks an evolution from traditional PEX (Cross-Linked Polyethylene) tubing.



Unlock the Complete VIPERT System Solution for Potable & Radiant Applications

Industry-Leading Flexibility for Easier and Faster Installation

One of the key characteristics of VIPERT tubing is its flexibility. Whether you're working with [VIPERT Potable or Radiant tubing](#), the ease with which it can be installed significantly reduces labour time on job sites. The tubing's ability to bend and curve around obstacles minimizes the need for fittings, resulting in faster, more efficient installations. This flexibility is particularly advantageous in radiant in-floor systems, where bends and turns are frequent in each of the loops.

Strength, Durability, and Extreme Environmental Resistance

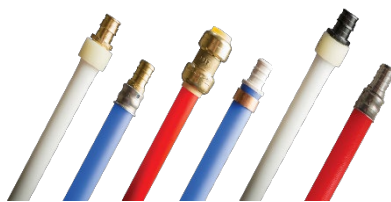
While flexibility is a key feature, VIPERT tubing doesn't compromise on strength. [VIPERT \(PE-RT\) tubing](#) is designed to withstand high pressure and temperature demands, making it ideal for a wide range of applications including: potable water systems, hydronic radiant heating, cooling, and snow-melting systems.

This strength is paired with excellent durability, ensuring long-lasting performance in even the most extreme conditions. Whether you're installing the tubing in a freezing climate or high-temperature environment, VIPERT tubing is built to handle it.

Sustainability and 100% Recyclability

In today's world, reducing our environmental footprint is more important than ever. [VIPERT tubing](#) is made with this in mind. It's 100% recyclable, offering a significant environmental advantage over traditional PEX tubing. Moreover, the manufacturing process of PE-RT produces fewer greenhouse gas (GHG) emissions compared to PEX, contributing to a more sustainable future, a win-win for all of us!

Flexible Joining Methods: Crimp, Expand, or Push



VIPERT tubing offers versatility in connection methods. Whether you prefer to crimp, expand, or push connection systems, VIPERT tubing accommodates all three joining techniques, allowing installers the flexibility to choose their preferred method. This adaptability makes it much easier for installers to integrate VIPERT into their current installation practices without the need for increased costs for additional specialized tools or training.

No-Nonsense 25-Year Warranty

VIPERT tubing comes with a 25-year warranty, providing peace of mind to both installers and homeowners. This no-nonsense warranty reflects the confidence in the product's long-term reliability, reinforcing its position as a leader in the industry.

Key Differences Between PE-RT and PEX

While both PE-RT and PEX tubing are made from polyethylene (PE) resin, the manufacturing processes is what differentiates the two. PEX tubing requires a secondary cross-linking process to enhance strength, whereas PE-RT tubing uses a Bimodal method. This process runs the resin through a dual PE reactor system, eliminating the need for cross-linking while meeting and exceeding the same standards set by PEX.

The result is a tubing product with best-in-class pressure and temperature ratings, excellent oxidative resistance under the harshest test conditions, in potable water recirculation lines with maximum chlorine content. [VIPERT \(PE-RT\) tubing](#) shows enhanced durability with no long-term degradation, ensuring the tubing will last for generations.

The key advantage to the manufacturing process for [VIPERT \(PE-RT\) tubing](#) is greater flexibility under all installation conditions, especially in tight spaces and the top choice for radiant in-floor system where tubing is installed in loop configurations, the relaxed memory properties make laying the tubing that much easier and greatly reduce the chances of kinking the tubing.

VIPERT (PE-RT) Tubing Sizes and Local Distribution

- VIPERT Potable tubing is available in sizes ranging from 1/4" to 2" with coil lengths from 100ft to 1,000ft and 20ft straight lengths (other sizes are available). Tubing comes in Blue, White, and Red, making it easy to differentiate between hot and cold-water lines.
- VIPERT Radiant (Oxygen Barrier) tubing ranges from 3/8" to 2" with coil lengths from 100ft to 1,200ft and 20ft straight lengths (other sizes are available). It is available in the signature VIPERT Green.



[CB Supplies](#), established in 1962, manufactures VIPERT tubing at its Surrey, BC plant. VIPERT tubing is available to installers locally, in all provinces through an extensive network of regional Plumbing & HVACR wholesale partners.

Certifications and Listings

VIPERT Potable and Radiant (Oxygen Barrier) tubing meets and exceeds all required North American certifications and standards. They are suitable for a variety of applications including: potable water systems, hydronic radiant heating, cooling, and snow-melting systems.

Precision-Engineered IVAR Radiant Manifolds



To complement the advanced tubing solutions, [CB Supplies](#) offers [IVAR Radiant Manifolds](#), precision-manufactured in Italy providing optimal distribution of heating and cooling fluids for radiant and snow/ice melting systems. These stainless-steel manifolds have been designed specifically for residential and commercial projects, enhancing hydronic system performance by ensuring a top thermal comfortable environment in every household and workspace. The intuitive design features flow meters equipped with lockshields for each loop, promoting system balance, reducing energy waste, and delivering superior thermal comfort to each zone.

For installing contractors, [IVAR Radiant Manifold](#) sets come pre-assembled and ready for installation on site. Equipped with manual shutoff valves or optional actuators, they allow for precise zone control.

Available in several header sizes:

- 1" and 1 1/4" with configurations of 2 to 12 loops
- 1 1/2" with configurations of 6, 8, 10, & 12 loops
- 2" with configurations of 10, & 12 loops

These manifolds are designed to accommodate any project layout, making them a versatile solution for hydronic systems.

Offering PE-RT and PEX Solutions: Unbiased Excellence

While VIPERT Potable & Radiant tubing represents the evolution of tubing with its PE-RT composition, [CB Supplies](#) has been manufacturing CANPEX™ Potable and Oxygen Barrier PEX-b tubing since the late 1990's for the North American markets. Both products are engineered to meet the high demands of modern hydronic systems. As a manufacturer of both PE-RT and PEX tubing, [CB Supplies](#) is committed to offering installers unbiased, top-quality options, allowing them to choose the product that best suits their project's specific requirements.

Conclusion

As the plumbing and heating industries continue to advance, [VIPERT \(PE-RT\) Potable & Radiant tubing](#) illustrates the evolution of tubing technology. Combining industry-leading flexibility, unmatched durability, environmental sustainability, and ease of installation, VIPERT tubing is the ideal choice for installers looking for a reliable, future-proof solution.

Whether you're working on potable water distribution or radiant heating projects, VIPERT tubing delivers the performance and reliability you need for today's demanding applications.

Michael Boudreau P.Eng.



For more information on VIPERT™ (PE-RT) Potable & Radiant tubing, please visit cbsupplies.ca

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.