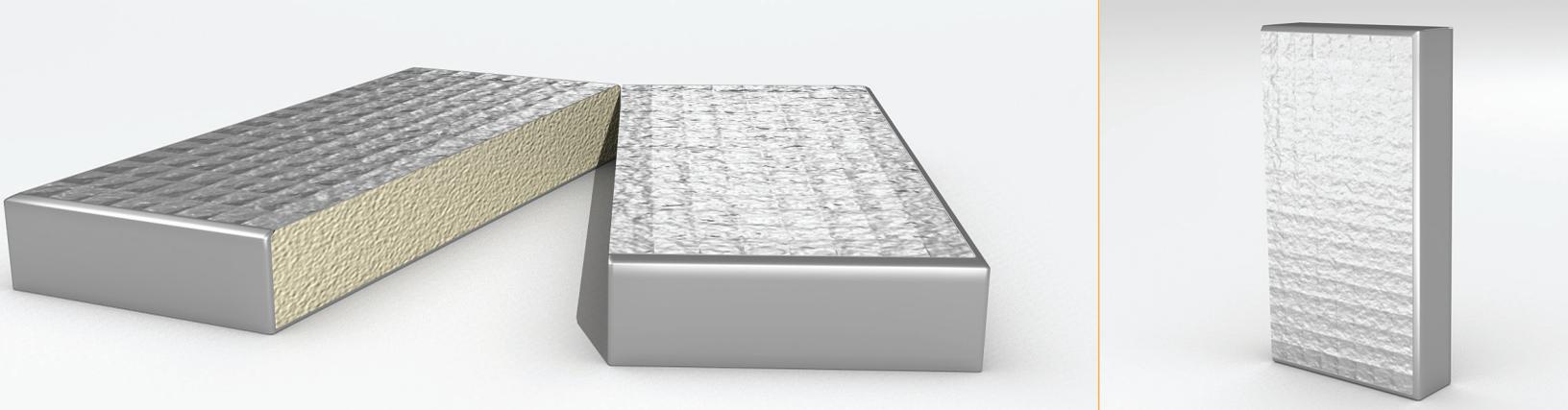


# ENVATHERM<sup>®</sup>

Foam Filled Performance

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## Refined Technology. Real Performance.

Automated efficiency takes insulated metal back pans and curtain-wall engineering to a new level. Refinements to traditional building envelope technology have put Envatherm<sup>®</sup> back pans ahead of the competition.

Innovation in foam delivery technology yields soft, even, self-sealing insulation that provides a competitive R-value for consistent, real world performance while avoiding interior surface condensation. The breathable foil facing maximizes insulative potential and protects against fire and UV damage. This same system is now being used to foam fill architectural exterior panels to provide additional thermal and acoustic properties.

Envatherm<sup>®</sup> insulated back pans can be used in curtain wall systems in conjunction with opaque glass panels featuring UV-resistant finishes or architectural metal panels for areas that do not require transparent glass. Unlike fibrous insulation, there is no loss of thermal performance due to air movement within the insulation or panel.

Envatherm<sup>®</sup> insulated back pans are tested for compliance with National Building Code of Canada fire safety standards for use as a component in both Combustible and Non-Combustible Construction. (Sections 3.1.4.2, 3.2.3.8, 3.1.5.5, 3.1.5.12)



Lenmak Envatherm<sup>®</sup> back pans, constructed in accordance with Intertek Design Listing LEI/IMWP 25-01, demonstrate low potential for vertical fire spread. (CAN/ULC S134 "Standard Method of Fire Test of Exterior Curtain Wall Assemblies") Spec. ID 28934

Flawless from Fabrication to Finish



## Features and Benefits

When compared to traditional fibreglass or mineral wool pans, **EnvvaTherm®** insulated metal back pans have a number of clear advantages:

Feature	EnvvaTherm® Pans	Traditional Fibreglass or Mineral Wool Pans
Certification	<p>EnvvaTherm® back-pans are constructed in accordance with Intertek Design Listing LEI-IMWP 25-01, Spec. ID 28934. To maintain certification, products and manufacturing plants are inspected four times per year. Consistency of fabrication ensures consistency of product quality.</p> 	<p>Certification is not mandatory. Standards of manufacturing and quality control are not regulated by any government or third party.</p>
Fire Safety	<p>EnvvaTherm® insulated back-pans are tested and confirmed to have low potential for vertical flame spread under CAN/ULC S134 “Standard Method of Fire Test of Exterior Curtain Wall Assemblies” and are in compliance with Section 3.2.3.8. where used in assemblies compliant with Section 3.1.5.5. of the National Building Code of Canada 2010</p>	<p>Code requirements are different for other types of insulation; test results and data is product-specific and manufacturers may choose not to pursue fire testing, so data may not be readily available.</p>
Air Seal and Adhesion	<p>EnvvaTherm® panels are filled with factory-applied low-density foam insulation, which is a certified air barrier material (ASTM E 2178-03, Intertek Project 3181312) and will not allow leakage of air or water. The insulation creates a secure bond to the interior walls of the metal panel, which seals corners and eliminates air gaps or potential leak points up to the installation perimeter to maintain air barrier continuity. Factory sealed panels eliminate the possibility of heat drumming or whistling. The insulation cannot delaminate from the metal back pan cavity so EnvvaTherm® panels will not cause a loss of thermal performance due to convective looping.</p>	<p>Mechanically-secured fasteners or weakened adhesives can allow insulation to loosen, separate, and sag over time, creating potential for costly service work or back-pans which experience a loss in thermal performance. Failure of corner or joint sealants may cause air leakage which can contribute to noise and heat transfer.</p>
Weight and Handling	<p>EnvvaTherm® panels are “light as air” – almost literally. Lighter insulation and a thinner metal create a panel up to 50% lighter than competitive fibrous products. This can contribute to easier and more cost-effective handling, shipping, and installation.</p>	<p>Heavier panels can be more costly to ship and more difficult to handle and install.</p>
Waste and Environmental Considerations	<p>EnvvaTherm® uses metal components which contain pre- and post-consumer recycled material. Foam insulation is 100% water-blown, uses no synthetic blowing agents or ozone-depleting substances, and is totally PBDE-free. It is a safe and totally stable substance after curing and component utilization is nearly 100% with no waste generated on site. EnvvaTherm® panels will not support growth of mold (ASTM C1338 (2008) Standard Test Method for Determining Fungi Resistance of Insulation Materials and Facings, Intertek Canadian Project Number G100033767), which helps to ensure air quality within the curtain-wall assembly and therefore within a building.</p>	<p>Traditional forms of insulation, whether blown or in batts, can have negative environmental impacts and will generate waste on-site when trimmed to fit custom panels. Dirt and moisture collecting in insulation can contribute to growth of mold, which in turn can infiltrate the building envelope through openings in back-pans where manually applied sealants give way.</p>