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**RESISTO HIGH-PERFORMANCE
REFLECTIVE INSULATION**

RESISTO®

HIGH-PERFORMANCE REFLECTIVE INSULATION

? WHY CHOOSE REFLECTIVE INSULATION?

RESISTO high-performance reflective insulation products effectively reduce energy costs through their use of radiation heat transfer. This phenomenon occurs when the infrared heat of a hot surface is transferred to a cold surface through an air space. Radiation thus comes into contact with any type of material and is then diffused, absorbed or reflected. For example, air, water and glass diffuse visible light to varying degrees, while a white surface (like snow) reflects it, and a black surface absorbs it.



THE RESISTO SOLUTION

THE PRODUCTS IN THE RESISTO REFLECTIVE INSULATION LINE HAVE A THICKNESS OF 3/16 IN (0.48 CM) OR 5/16 IN (0.79 CM) AND ARE COMPOSED OF SEVERAL LAYERS. THEY ARE AVAILABLE IN ROLLS OF VARIOUS WIDTHS AND LENGTHS.

To ensure the strength of the product, each reflective surface is bonded to a polyethylene liner on which a metallized coating is applied. The metallized facer of RESISTO HIGH-PERFORMANCE REFLECTIVE INSULATION reflects the radiant energy that comes into contact with its surface. In this way, the heat is kept inside or outside the building, depending on the climate.

These metallized facers are applied over rows of air bubbles to optimize the product and give it rigidity and greater strength. In addition, these two inner layers of bubbles control the heat flow through conduction.



LINE COMPOSITION



OUR LINE INCLUDES FIVE TYPES OF PRODUCTS THAT ARE DISTINGUISHED BY THEIR SURFACES AND THICKNESS. VARIOUS SIZES (LENGTHS AND WIDTHS) ARE ALSO AVAILABLE IN EACH CASE.

M1M	3/16 in (0.48 cm)	METALLIZED SURFACE, ONE ROW OF BUBBLES, AND METALLIZED SURFACE
M1V	3/16 in (0.48 cm)	METALLIZED SURFACE, ONE ROW OF BUBBLES, AND WHITE SURFACE
M2M	5/16 in (0.79 cm)	METALLIZED SURFACE, TWO ROWS OF BUBBLES, AND METALLIZED SURFACE
M2V	5/16 in (0.79 cm)	METALLIZED SURFACE, TWO ROWS OF BUBBLES, AND WHITE SURFACE
CM2P	5/16 in (0.79 cm)	METALLIZED SURFACE COVERED WITH TRANSPARENT COATING, TWO ROWS OF BUBBLES, AND TRANSPARENT SURFACE (FOR INSTALLATION UNDER CONCRETE SLABS)

* "M" stands for metallized (a reflective surface) and "V" stands for vinyl (a white polyethylene surface).

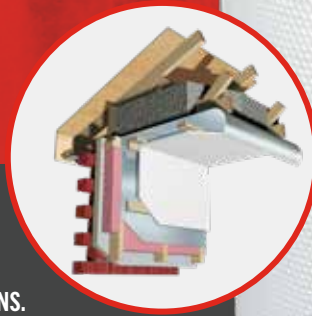
IFLEX

Our line also includes our reflective vapour barrier IFLEX, which is a transparent polyethylene coated with a metallized coating. It mainly serves as a reflective vapour barrier for walls and ceilings. The insulating properties of the reflective facer allow an increase in the insulating value of the system in place, just like the other products in the line.



MAIN APPLICATIONS

THE PRODUCTS CAN BE USED IN RESIDENTIAL, COMMERCIAL, INDUSTRIAL AND AGRICULTURAL PROJECTS AS WELL AS FOR HEATING, VENTILATION AND AIR-CONDITIONING (HVAC) APPLICATIONS. FOR INDUSTRIAL APPLICATIONS, REFLECTIVE INSULATION IS IDEAL FOR INSULATING VENTILATION DUCTS AND PLUMBING SYSTEMS.



- Walls and ceilings
- Buildings with a metal structure
- Water lines and ventilation pipes
- Concrete block walls
- Concrete slabs
- Garage doors
- Radiant water heating systems
- Water heaters
- Crawl spaces

Note: The installation method of these products may have an impact on their efficiency; it is therefore important to know the best installation methods recommended by RESISTO. Furthermore, since RESISTO reflective insulation is also a 100% vapour barrier, it must be installed on the warm side of the assembly, according to the construction standards in your area. Visit our website to find out more.

BENEFITS OF REFLECTIVE INSULATION



- Quick and simple installation
- Reduction of condensation, air infiltration and energy costs
- Decrease of heat input to the inside, with excellent R-value
- Stable and durable vapour barrier
- Prevention of condensation, and properties not affected by mould
- Easy-to-clean aesthetic finish

ACCESSORY PRODUCTS



To minimize air infiltration and humidity transfer, ensure that the REFLECTING INSULATION is not punctured and the insulation system is waterproof. All holes and junctions between two insulation materials must be sealed with RESISTO ADHESIVE TAPE or with a suitable mastic:

2 in × 30 ft (5.1 cm × 9.1 m) 2 in × 150 ft (5.1 cm × 45.7 m) 3 in × 150 ft (7.6 cm × 45.7 m)	ALUMINUM ADHESIVE TAPE
2 in × 150 ft (5.1 cm × 45.7 m)	METALLIZED ADHESIVE TAPE
2 in × 180 ft (5.1 cm × 55 m)	VINYL ADHESIVE TAPE



Moreover, the use of SPACER STRIPS is highly advised. They create an air space between the REFLECTING INSULATION and the surface to be insulated to easily obtain maximum insulating value at a low price.

APPLICABLE STANDARDS*

RESISTO REFLECTIVE INSULATION PRODUCTS ARE TESTED ACCORDING TO THE FOLLOWING STANDARDS:

- **ASTM C1224:** Standard Specification for Reflective Insulation for Building Applications
- **ASTM C1363:** Standard Test Method for Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus
- **ASTM C518:** Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus

ACCORDING TO ASTM C1224 AND C1363, THE R-VALUES FOR RESISTO REFLECTIVE INSULATION ARE THE FOLLOWING*:

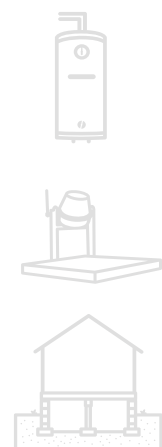
- Up heat flow direction: R-5
- Down heat flow direction: R-10.34
- Horizontal heat flow direction: R-6.7
- The material itself has an R-0.98 value (with no air gap)

**This is according to hot box testing where the material is installed in an enclosure with an air gap between the substrates. This test was conducted with M2M material.*

*IMPORTANT NOTES:

RESISTO HIGH-PERFORMANCE REFLECTIVE INSULATION is not a fire retardant (like drywall). However, the ASTM E84 test gives it a Class A rating for retarding flame spread and smoke development, both for the reflective facer and for the white polyethylene side. These results meet most building code standards for insulation products. MIM and MIV products have also been tested according to CAN/ULC-S102 standard.

For more information on our reflective insulation products or to learn more about their installation, visit www.resisto.ca.



RESISTO[®]

BUILDING PRODUCTS

Waterproofing

Insulation

Maintenance

resisto.ca