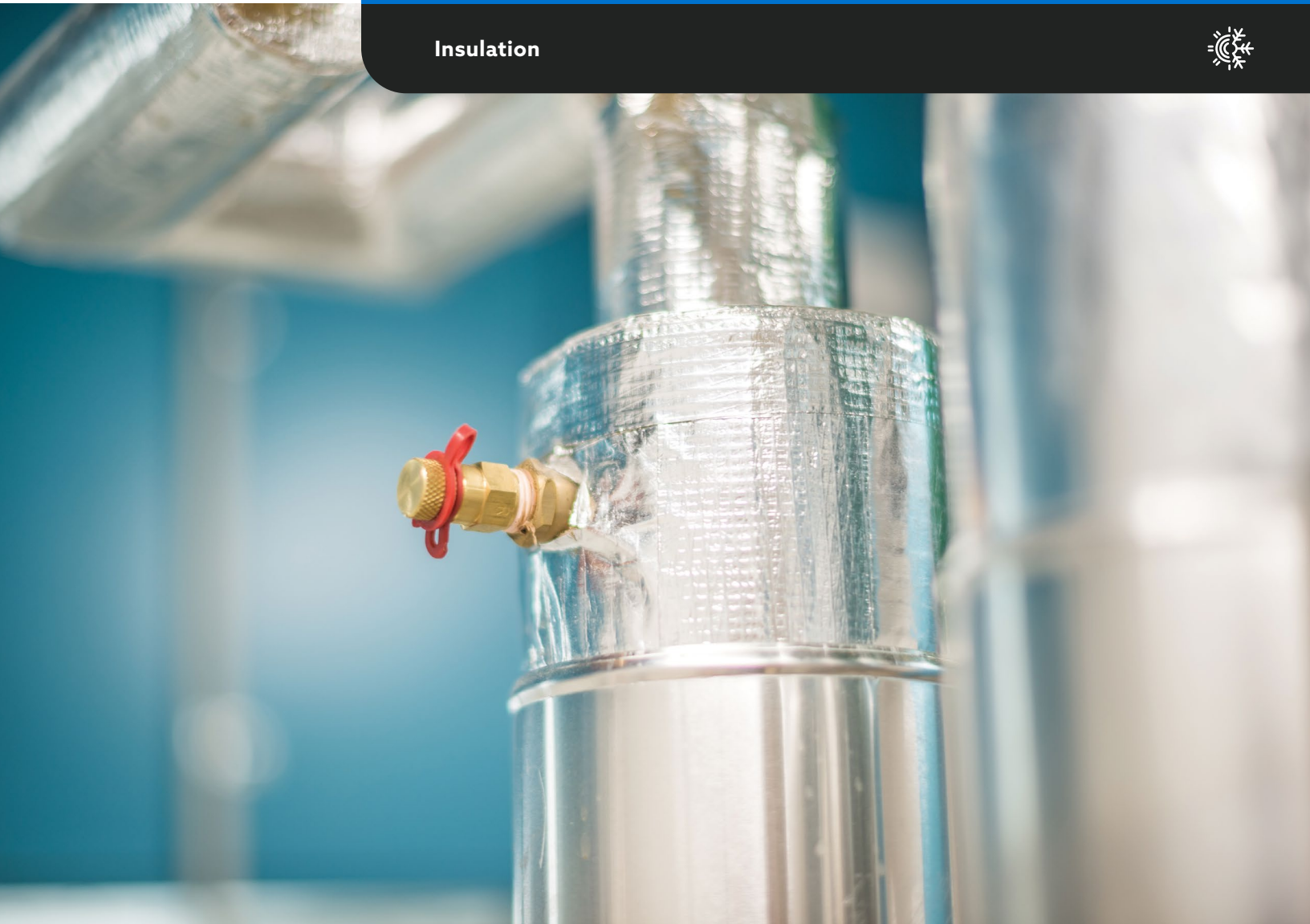


SOPRA-FOIL

Thermal Reflective Insulation and Vapour Barrier
Designed to Reduce Heat Transfer

Insulation



Why Choose Reflective Insulation?

SOPREMA's high-performance reflective insulation effectively reduces energy costs through its use of radiant heat transfer. This phenomenon occurs when infrared heat from a hot surface is transferred to a cold surface through an air gap. When radiation comes into contact with any type of material, it is diffused, absorbed, or reflected. For example, air, water and glass scatter visible light to varying degrees, while a white surface, such as snow, reflects it and a black surface absorbs it.



The SOPREMA Solution

SOPREMA's SOPRA-FOIL products are 0.48 cm (3/16 in) or 0.79 cm (5/16 in) thick, composed of several layers, and available in rolls of various widths and lengths.

To ensure the product's durability, each reflective surface is adhered to a polyethylene liner to which a metallized coating is applied. The metallized surface of SOPREMA's high-performance reflective insulation allows it to reflect the radiant energy that comes into contact with it. As a result, heat is kept inside or outside the building, depending on weather conditions.

These metallized surfaces are applied over one or two layers of air bubbles, a structure which optimizes the effectiveness of the product by giving it greater rigidity and strength. Additionally, these inner air bubble layers regulate heat flow by conduction.

Components of the Product Line



Our line includes four types of products categorized by their surface and thickness. Several sizes (lengths and widths) are also available for each type.

M1V	0.48 cm (3/16 in)	A metallized reflective surface, one layer of bubbles, and a white polyethylene surface
M2M	0.79 cm (5/16 in)	A metallized reflective surface, two layers of bubbles, and a metallized polyethylene surface
M2V	0.79 cm (5/16 in)	A metallized reflective surface, two layers of bubbles, and a white polyethylene surface
CM2P	0.79 cm (5/16 in)	A metallized reflective surface covered with a clear coating, two layers of bubbles, and a clear polyethylene surface (for installation under concrete slabs)

* "M" stands for metallized (for the reflective side) and "V" stands for vinyl (for the white polyethylene side).



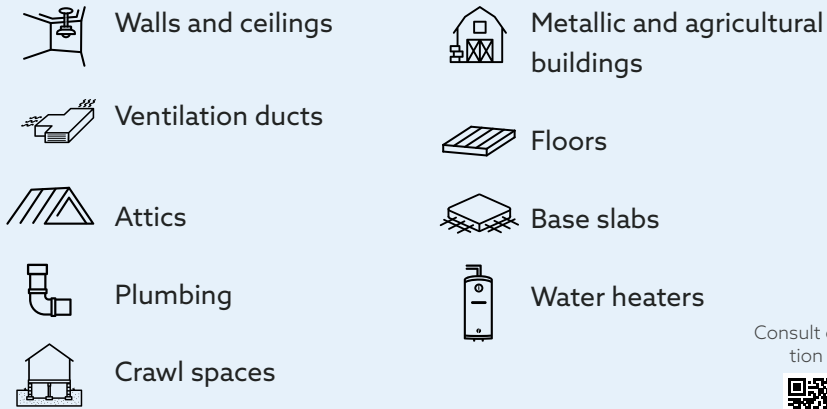
IFLEX

Our line also offers the IFLEX reflective vapour barrier. It is a clear polyethylene layer with a metallized coating. It is mainly used as a reflective vapour barrier for walls and ceilings. As with the other products in the line, the insulating properties of the reflective surface help increase the insulation value of the existing system.



Main Applications

Our products can be used in residential, commercial, industrial and agricultural projects, as well as in heating, ventilation and air conditioning (HVAC) applications. For industrial applications, reflective insulation is ideal for ventilation ducts and plumbing.



Note: The installation method used for these products can change their effectiveness; it is therefore important to follow SOPREMA's recommended installation methods. Moreover, since SOPREMA reflective insulation is also a 100% vapour barrier, it must be installed on the warm side of the assembly, in accordance with the building codes in effect in your region.

Benefits of Reflective Insulation

- + Quick and easy installation
- + Reduced condensation, air infiltration and energy costs
- + Reduced indoor heat loss by providing a better R-value than traditional vapour barriers
- + Reliable and durable vapour barriers
- + Anti-condensation surface with reflective properties unaffected by mould
- + Attractive easy-to-clean finish

Consult our installation guides:



M2V, M2M, M1V,
and CM2P



IFLEX



Water
heaters



Accessory Products



To minimize air infiltration and moisture transfer, care must be taken to ensure that the reflective insulation is not perforated and that the insulation system is properly waterproofed. All holes and junctions between two insulating materials must therefore be sealed with one of the SOPREMA ADHESIVE TAPES or with a suitable sealant:

5.1 cm × 9.1 m (2 in × 30 ft)
5.1 cm × 45.7 m (2 in × 150 ft)
7.6 cm × 45.7 m (3 in × 150 ft)

ALUMINUM ADHESIVE TAPE



Additionally, the use of SPACING STRIPS is highly recommended. They create an air gap between the reflective insulation and the surface to be insulated, providing maximum insulating value easily and at a low cost.

Applicable Standards*

SOPREMA's 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

To view the R-values according to standards **ASTM C1224** and **ASTM C1363**, please refer to the technical data sheets.

**As per hot box apparatus testing where the material is installed in an enclosure with an air gap between the substrates. This test was carried out using M2M materials.*



*IMPORTANT NOTES:

SOPREMA's high-performance reflective insulation is not a fireproof product (like drywall). However, the ASTM E84 test awards them an A rating for flame spread and smoke development, both for the reflective surface and the white polyethylene side. These results meet most building code standards for insulation products. The M1M and M1V products have also been tested according to the CAN/ULC-S102 standard.

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



Since 1908, SOPREMA improves people's well-being by protecting their environments with innovative and sustainable solutions for builders in the roofing, building envelope and civil engineering sectors.



Waterproofing



Insulation



Vegetated
solutions



Rainwater
Management



Soundproofing



Protection



Accessory
Products