

Floor-Heating Systems

Slab insulation for *Mapeheat*™ floor heating

Homes located in particularly cold climates can benefit from a thermal break between the cold on-grade concrete and the radiant heat to improve performance. A thermal break or thermal barrier is an element of low thermal conductivity placed in an assembly to reduce or prevent the flow of thermal energy between materials.

MAPEI's thermal break recommendation includes *Mapesonic*™ *RM* rubber underlayment or *Mapeguard*® *Board* adhered to the concrete substrate, with *Mapeheat Membrane* adhered on top of the thermal break material. Insulating below your floor-heating system ensures that a greater percentage of heat energy will transfer to the flooring surface, leading to the following benefits:

- Reduced energy use and increased efficiency
- Shorter warmup times
- Higher floor surface temperature at a given thermostat setting

Your underlayment solutions when both sound reduction and a thermal break are desired for radiant-floor heating:

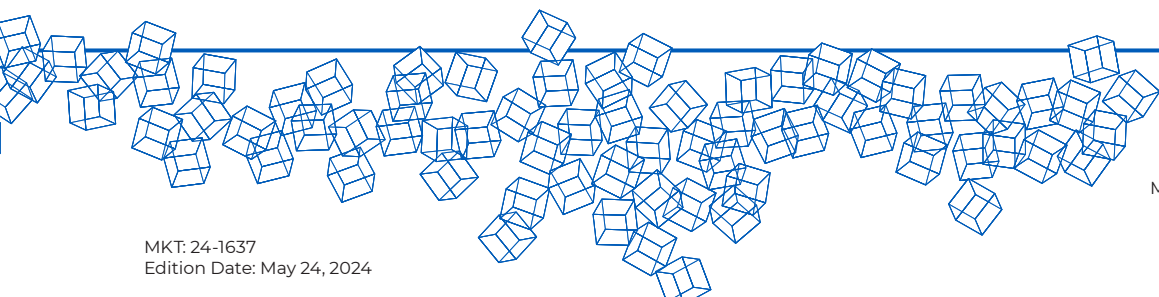
Different underlayments offer different properties. Follow all manufacturer's instructions and confirm that all materials used are compatible with floor-heating systems.

Mapeheat Membrane offers uncoupling, waterproofing and easy installation of *Mapeheat Cable*. Assuming that your floor deflection is within industry standards, it can also replace a layer of subfloor assembly such as plywood or cement board.

Mapesonic RM recycled rubber underlayment is a sound-reduction membrane that also adds thermal insulation.

MAPEI's recommended thermal break options:

<i>Mapesonic RM 2, Mapesonic RM 5 and Mapesonic RM 10</i> (2 mm, 5 mm and 10 mm)	Thermal resistance factor (R-factor) of < 1
<i>Mapeguard Board</i>	Thermal resistance factor (R-factor) of 1.85 at 1/2" (1.27 cm) thickness



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