

# Cement Coated Insulation Boards

## Overview

Warmup Insulation Boards are manufactured from water resistant extruded polystyrene, finished on both faces with a thin layer of fibreglass reinforced cement. They are available in a range of thicknesses, from 6mm to 50mm, to individual project requirements.

They are ideal for tile backing applications on both walls and floors, with the internal layer of insulation capable of supporting 30 tonnes per square metre. The 0.5mm thick cement coating provides an excellent surface for tile adhesive, plaster and smoothing/leveling compounds, with no priming required.

The low thermal conductivity of the insulation enhances the efficiency of underfloor heating systems, even when used over pre insulated sub floors. This is because they reduce the thermal mass of the floor, significantly reducing the amount of heat absorbed by the subfloor. This allows the underfloor heating system to warm the floor and the room up faster and ensures the floor cools down faster after use. By reducing the amount of time the room takes to warm up and cool down, the room can spend longer at its cooler set back temperature, reducing its heat loss.

The waterproof insulation panels are suitable for bathrooms and showers as well as dry rooms, allowing the same construction to be used throughout

### FLOOR CONSTRUCTION

- 1 Warmup Coated Insulation Board
- 2 Flexible Tile Adhesive
- 3 Subfloor



**Electric**  
Heating System

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**Warmup**<sup>®</sup>

The world's best-selling floor heating brand™

# Technical Data

## TECHNICAL DATA - Insulation Boards

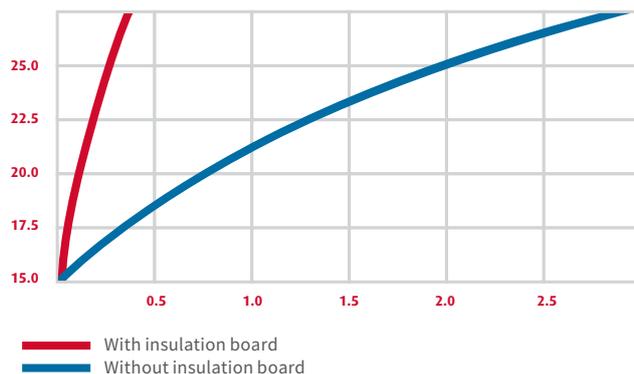
MODEL	THICKNESS (mm)	WIDTH (mm)	LENGTH (mm)	R VALUE (m <sup>2</sup> .K/W)
INSBOARD6MM	6	600	1250	0.16
INSBOARD(PK1)	10	600	1250	0.28
INSBOARD20MM	20	600	1250	0.58
INSBOARD30MM	30	600	1250	0.88
INSBOARD40MM	40	600	1250	1.20
INSBOARD50MM	50	600	1250	1.50



**Warmup Insulation Boards have zero Ozone Depletion Potential (ODP) and a Global Warming Potential (GWP) of less than 5**

## TECHNICAL DATA - Insulation Boards

AREA COVERAGE	0.75m <sup>2</sup>
DENSITY	36 kg/m <sup>3</sup>
COMPRESSIVE STRENGTH	450 kPa
WATER ABSORPTION (capillary)	Nil
WATER VAPOUR PERMEABILITY (S <sub>d</sub> )	3.2m
RESISTANCE TO BODY IMPACT	3 x 120 N/m
BENDING STIFFNESS, EI (20mm/30mm)	601KNmm <sup>2</sup> / 1285 kN/mm <sup>2</sup>
MAXIMUM TILE LOADING WEIGHT	62 kg/m <sup>2</sup>
BOND STRENGTH	0.3 N/mm <sup>2</sup>
SHEAR BOND STRENGTH	3.32 kg/cm <sup>2</sup>
THERMAL CONDUCTIVITY	0.036 W/mK
COEFFICIENT OF LINEAR EXPANSION	30 x 10 <sup>-6</sup> K <sup>-1</sup>
FIRE RATING	Class 0
IMPACT SOUND REDUCTION	dLw = 21



The Warmup Research Centre found that response times were cut from over 2.5 hours to just 20 minutes by including Warmup Coated Insulation within the system installation, placing it between the Warmup Electric Underfloor Heating System and the concrete sub floor.

Notes:

This data applies to Warmup heating products only. Assumes a system running twice a day for 2 hours on a concrete subfloor. Warmup tests performed to EN442-2 standards

# Features

- Easy to cut and shape around fixtures with a knife or saw
- Comes in a range of thicknesses to suit floor and wall applications. Can be fixed to solid or stud walls.
- Excellent as internal wall insulation especially when compared to standard cement building boards and plaster boards
- Impact sound reduction  $dl_w = 21$
- High thermal properties, resisting heat loss and increasing the heating systems efficiency
- CE marked for ultimate piece of mind 