

# ISO BOARD<sup>®</sup>

**ZERO  
ODP**

Premier Thermal Insulation for • Roofs • Ceilings • Floors • Walls



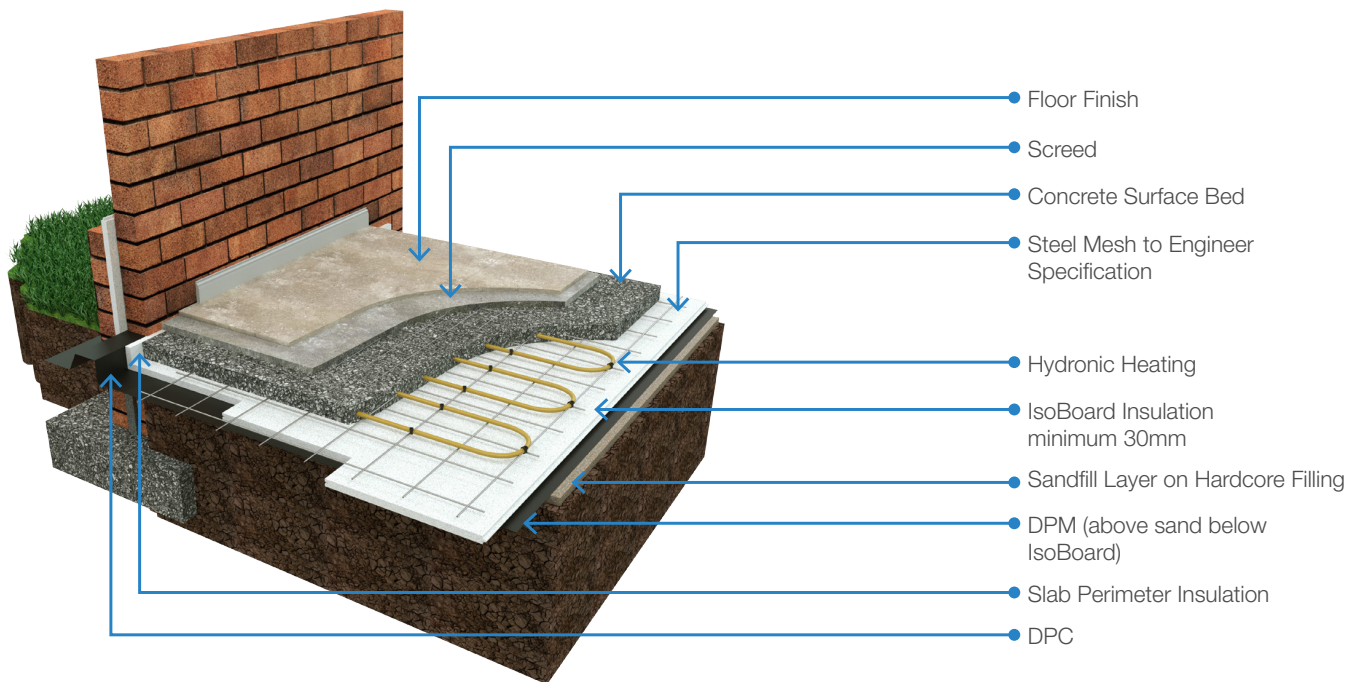
## Surface Bed and Cavity Wall Thermal Insulation

# Surface Bed Insulation

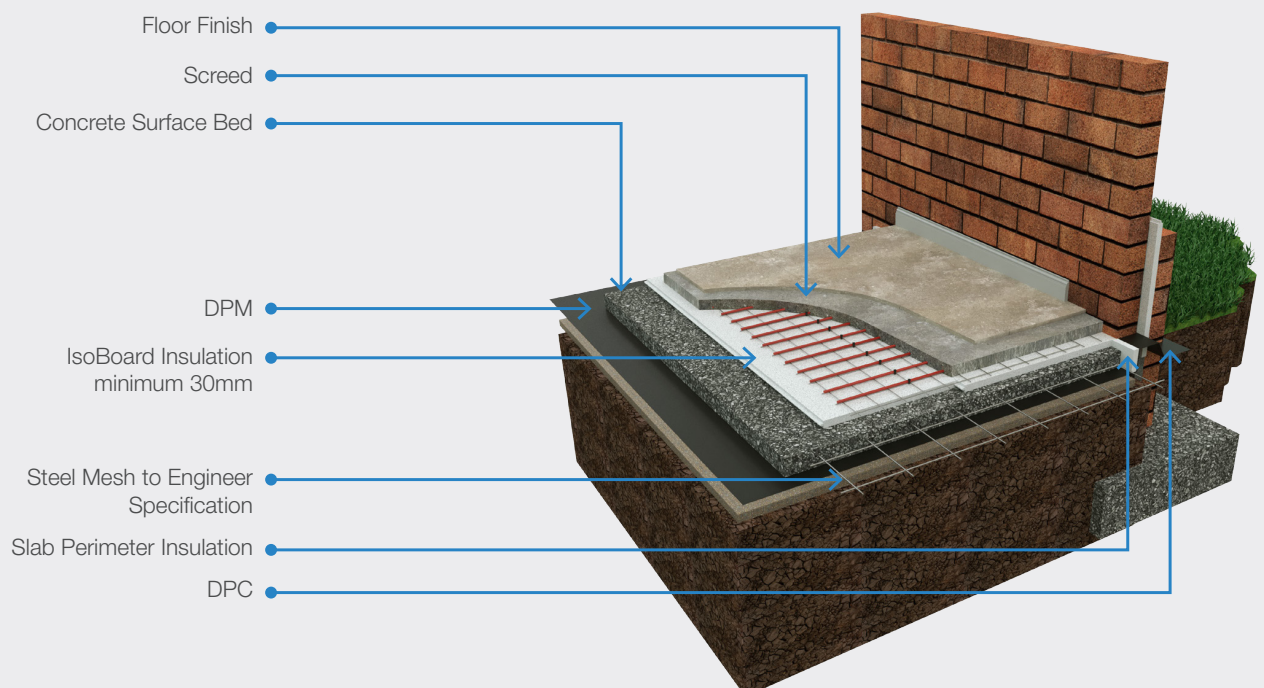
Loss of heat through floors on concrete surface beds is experienced as a cold underfoot condition, particularly during winter when the supporting soils cool down due to hygroscopic action of water.

Insulated floor slabs allow the thermal mass of the slab to moderate interior temperature, maintaining a more constant and comfortable internal temperature, whether a heating system is employed/activated or not. It is mandatory to insulate heated floors in terms of SANS 10400 XA.

## In slab water heating (hydronic heating)



## Under screed above slab (electrical heating)



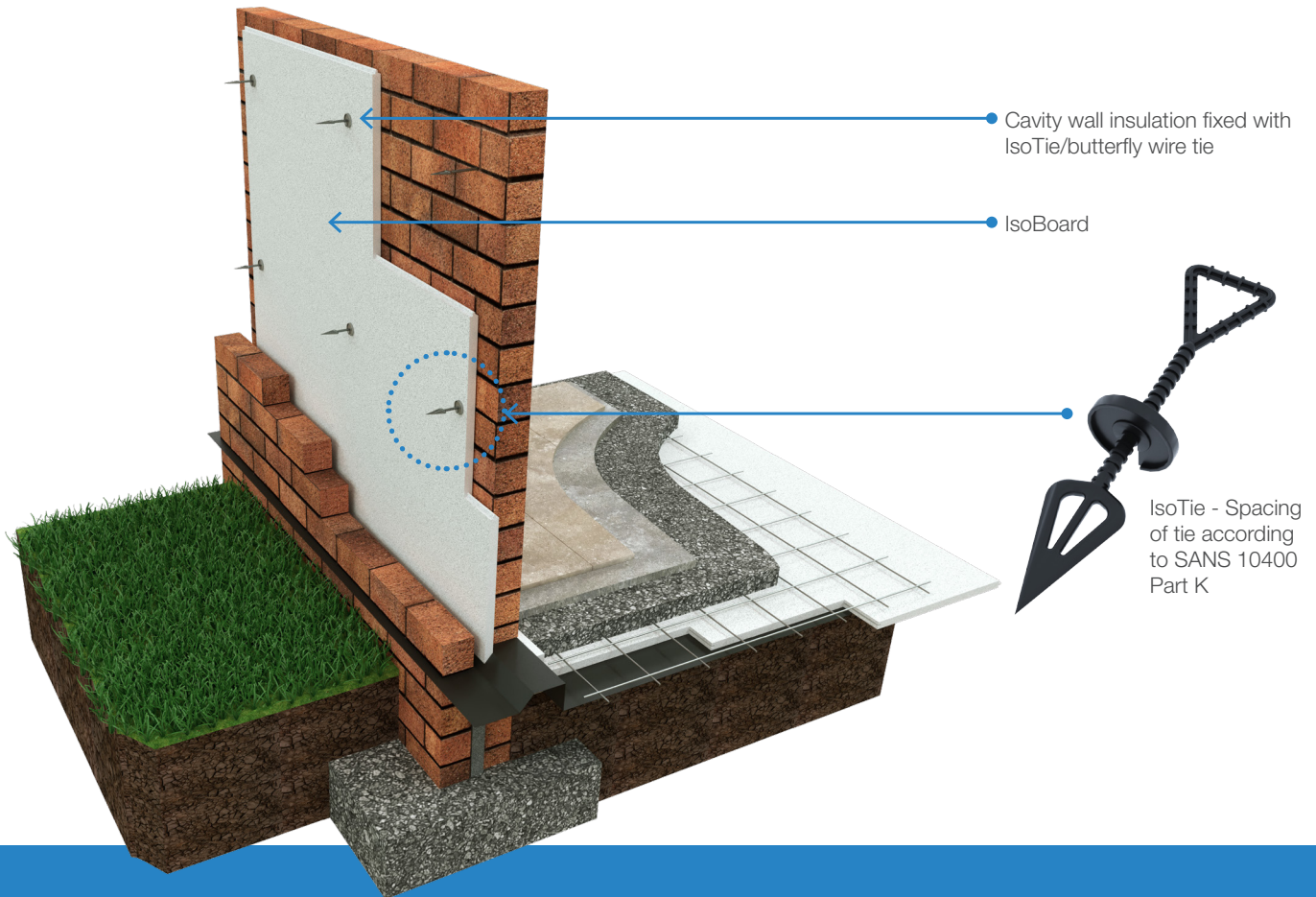


# Cavity Wall Thermal Insulation

Cavity wall insulation will prevent heat transfer to the inner leaf of sun exposed walls and heat loss through walls to the exterior.

Moisture within the cavity is prevented from condensing onto and penetrating through the inner leaf when IsoBoard is installed.

The insulation restricts heat transfer to temperature controlled buildings and passive cooled environments utilizing thermal mass to moderate temperature.



## Typical uses for IsoBoard Surface Bed Insulation:

1. Installed below screeds of domestic and commercial applications where under-floor heating systems are installed. Thermal resistance  $1 \text{ m}^2\text{K/W}$  is mandatory for under-floor heating systems as per SANS 10400 XA.
2. Placed between mesh reinforced floor screeds and surface bed to prevent room heat loss through the floor, using the thermal mass to moderate room temperature.
3. Installed below refrigerated slabs of ice rinks, freezer rooms and certain agricultural applications to minimise heat flow from warmer surface beds into cold room environments.

## Typical uses for IsoBoard Cavity Wall Insulation:

1. Used in residential homes designed for comfort and energy efficiency;
2. Cold storage applications;
3. Passive cooled building systems;
4. Agricultural, pharmaceutical, medical and commercial applications where stable internal temperatures are required.
5. Agrément 2000/ 276

## Site Handling Instructions:

1. Store boards flat within original packaging until required.
2. Boards are to be protected from adverse weather conditions and direct sunlight for the storage period.
3. Handle and install with care to prevent damage to board edges.
4. IsoBoard is easily cut to lengths on site using a sharp blade or hack-saw, or can be supplied cut-to-length by the Regional Distribution Centres.

## Suggested Bill of Quantity Specification:

### Surface Bed Thermal Insulation below floor slab for residential applications

IsoBoard high density 32-36kg/m<sup>3</sup> rigid extruded polystyrene 100% closed cell insulation board of minimum 30mm thickness and 600mm width with tongue and groove joints laid on DPM (elsewhere) under reinforced concrete beds/screeds.

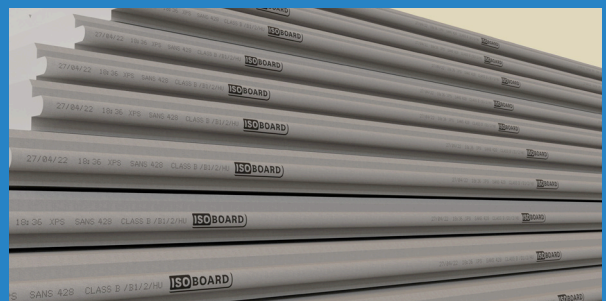
### Cavity Wall Insulation

IsoBoard high density 32-36 kg/m<sup>3</sup> rigid extruded polystyrene 100% closed cell insulation board of \_mm thickness and 600mm width with tongue and groove / butt-ended joints fixed to inner skin of block cavity wall such as to shed moisture. Galvanized mild steel ties size \_mm with fish tailed ends built into horizontal joints in wall at maximum 300mm centers along top and bottom edges, including neatly notching board edges around wall ties, window and door frames. Alternate ties are used to secure boards to the inner leaf, or employ IsoTies.

## Ordering information

- IsoBoard thermal insulation is available in standard lengths from 4.8m to 7.2m in 600mm increments and in 8m and halves for 25, 30, 40 and 50mm boards. Board length tolerance +5mm.
- IsoBoard thicknesses range between 25mm, 30mm, 40mm up to 80mm, with board thicknesses of 60mm and above made to order.
- IsoBoard is always 600mm (± 2mm) wide, with a tongue and groove edge profile so adjacent boards interlock.
- Please consult a representative for the appropriate thickness for use in your region to comply with energy usage requirements.

### How to identify IsoBoard:



IsoBoard can be identified by the logo and manufacturing details on the tongue of the board.

	R-Value	U-Value
Thickness (mm)	Thermal Resistance (m <sup>2</sup> ·K/W)	Thermal Transmittance (W/m <sup>2</sup> ·K)
25	0,953	1,049
30	1,143	0,875
40	1,524	0,656
50	1,905	0,525
60	2,287	0,437
70	2,668	0,375
80	3,049	0,328

### Thermal Conductivity tested to SANS 8301

IsoBoard thermal conductivity k value 0.02624 W/m.K - Test result available

### Fire Classification: 10400 Part T and SANS 428

IsoBoard B/B1/2 horizontal and vertical / with or without Sprinklers



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