ISOBOARD®

ZERO ODP

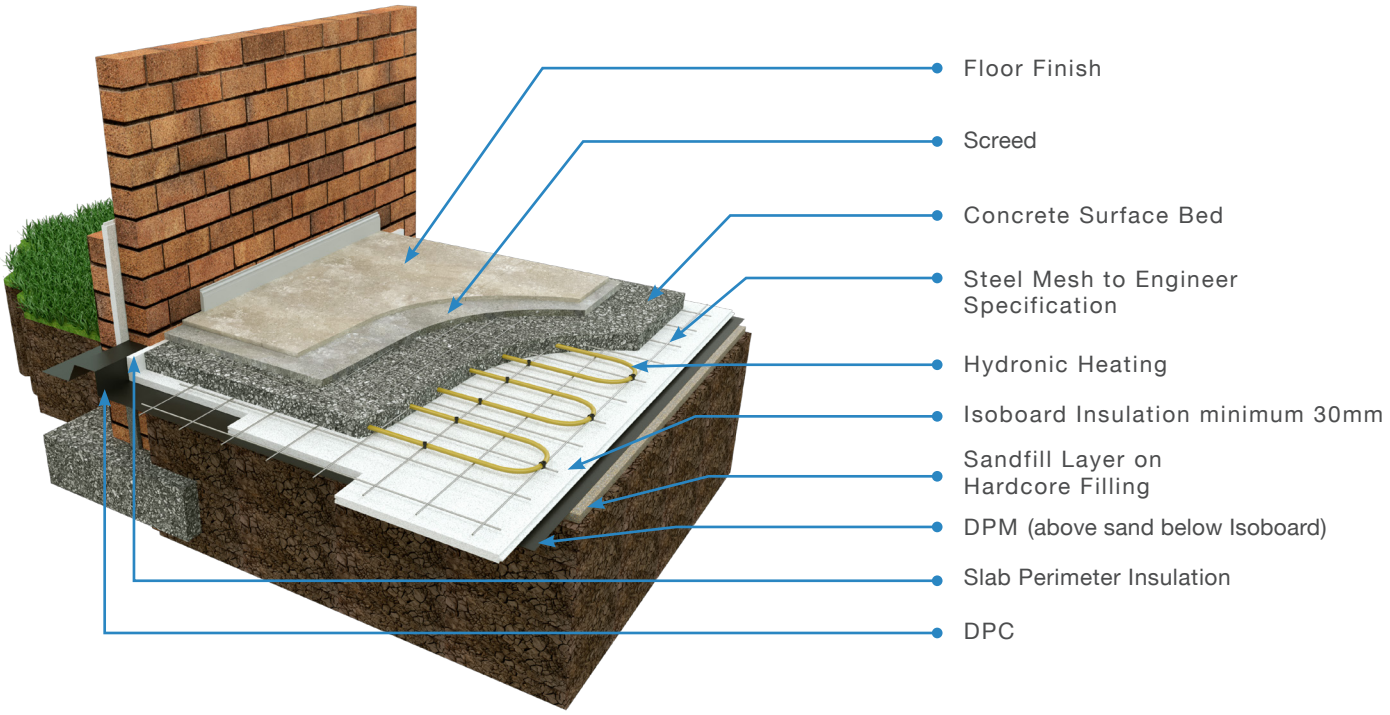
Premier Thermal Insulation for • Roofs • Ceilings • Floors • Walls

Surface Bed and Cavity Wall Thermal Insulation

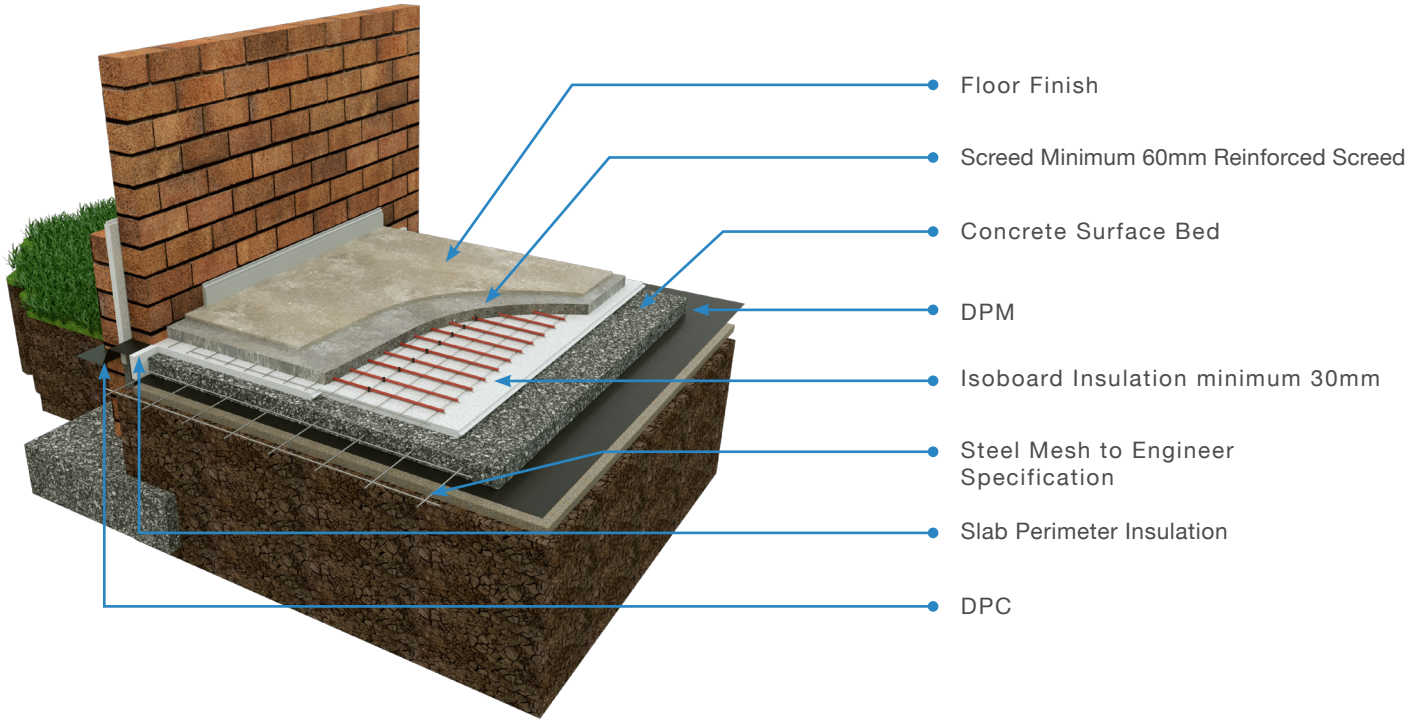
Surface Bed Insulation

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)

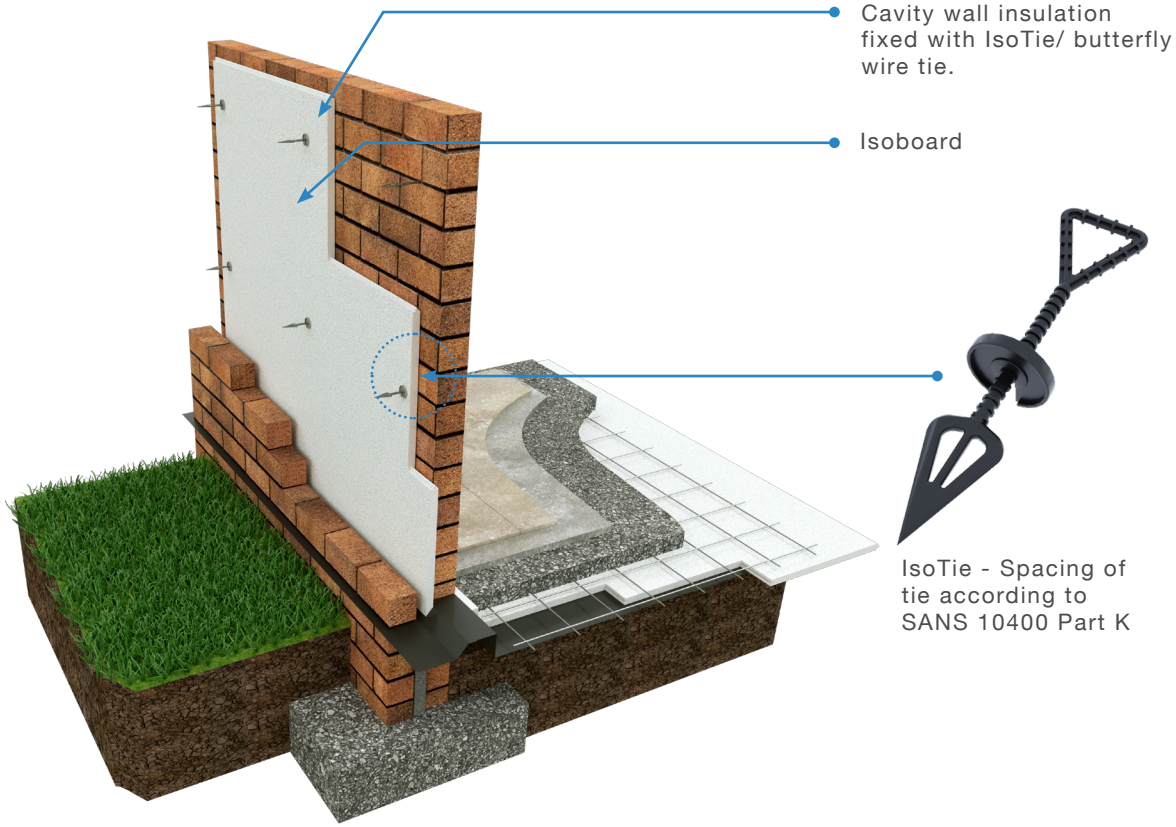


Under screed above slab (electrical heating)



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 m°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

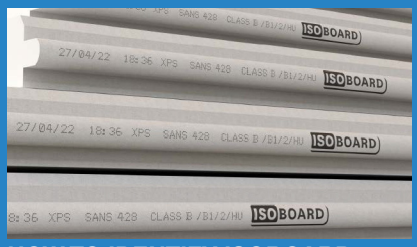
"IsoBoard high density 32-36kg/m3 rigid extruded polystyrene 100% closed cell insulation board of minimum 30mm thickness and 600mm width with tongue and groove joints laid on DPM (elsewhere) under reinforced concrete beds/ screeds.

Cavity Wall Insulation

"IsoBoard high density 32-36 kg/m3 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 with 0,6m increments and in 8m and halves for 30, 40, 50mm board lengths. Tolerance ± 5mm. Enquire availability of lengths of thicker board.
- Common cavity wall and under floor requirements. Thicknesses range between 30mm, 40mm and 50mm, with board thicknesses of 60 mm and above made to order.
- IsoBoard is always 600mm (± 2mm) wide, with a tongue and groove edge profile for adjacent boards to interlock. Shiplap edge on request.
- Please consult a representative for the appropriate thickness for use in your region to comply with energy usage requirements.



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

HOW TO IDENTIFY ISOBOARD

	R-Value	U-Value
Thickness (mm)	Thermal Resistance (m.°K/W)	Thermal Transmittance (W/m2°K)
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
90	3,429	0,292
100	3,811	0,262

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

D&D

ROOF INSULATIONS

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