

# 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. In order for rooms to be heated or cooled energy efficiently, the floors need to be insulated from the surrounding soil bed to prevent soilbed from being heated.**

## Typical uses as IsoBoard Surface Bed Insulation:

1. Placed between mesh reinforced floor screeds and surface bed to prevent room heat loss and additional comfort.
2. 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.
3. Installed below screeds of domestic and commercial applications where under-floor heating systems are installed.

## Typical uses as IsoBoard Surface Perimeter Insulation

- Installed new or as a retrofit to residential homes having under floor heating, for those interested in energy cost saving.

## Suggested Bill of Quantity Specification:

### Surface Bed Insulation for residential applications

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

### Perimeter Insulation

“IsoBoard high density 32-36kg/m<sup>3</sup> rigid extruded polystyrene 100% closed cell insulation board of 30 mm thickness and 600 mm width installed upright against outer foundation wall to depth of 600 mm secured with soil ballast.”

### Above slab, below screed Insulation

“IsoBoard high density 32-36kg/m<sup>3</sup> rigid extruded polystyrene 100% closed cell insulation board of \_\_\_ mm thickness and 600 mm width installed above floor slab below reinforced screed not less than 60 mm thick.”

## Site Handling Instructions

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



Weldmesh reinforcing in surface bed



Above slab, below screed insulation



Perimeter Insulation



Insulation under ice surface

# SURFACE BED INSULATION

## Installation guidelines:

### Surface Bed Insulation

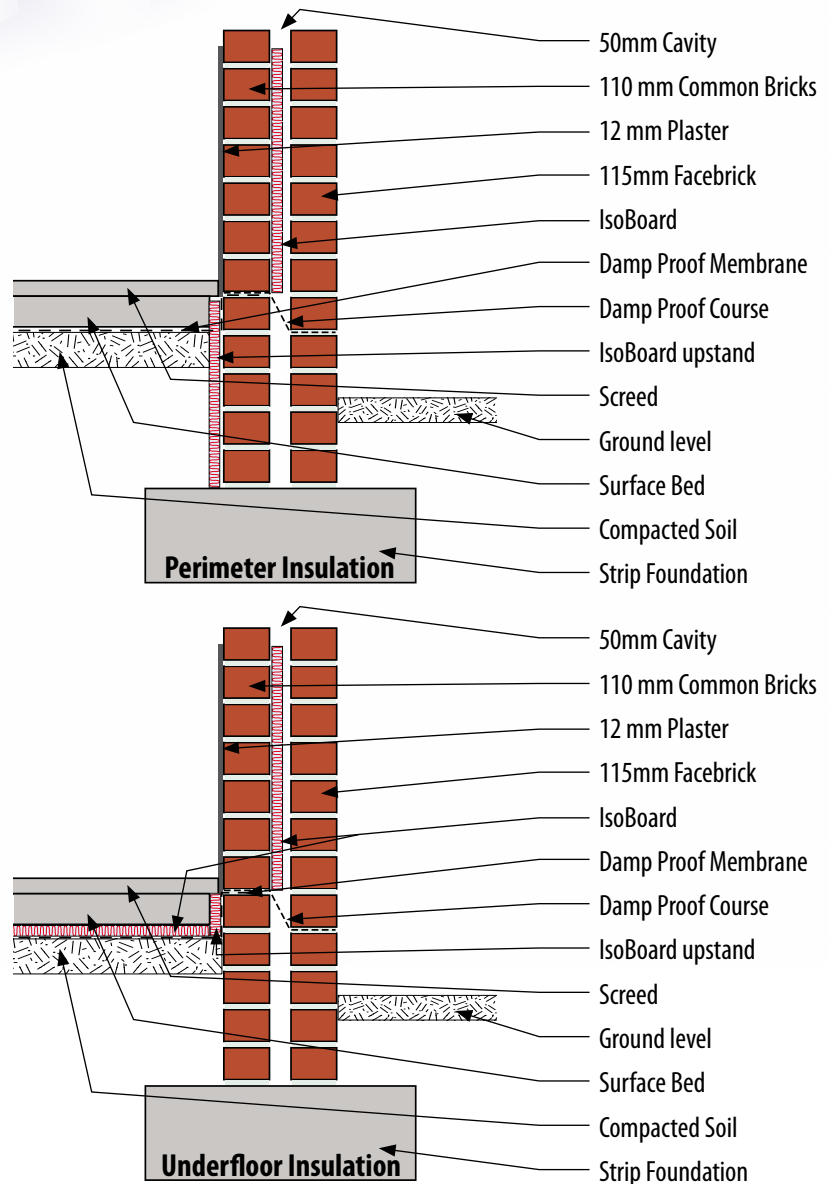
1. Prepare soil foundation and treat with weed killer and place damp proof course. After cleaning, place IsoBoard panels.
2. Jointing between boards should be effected with the tongue and groove or shiplap edge profiles.
3. The reinforced concrete slab is poured above the IsoBoard, in accordance with the specifications of the Structural Engineer, with the reinforcing spaced above the board.
4. Care must be exercised to prevent board flotation during pouring.

### Perimeter Insulation

1. IsoBoard is installed vertically against the inner or outer foundation wall to a depth of 600 mm, with the tongue towards the top. Secure IsoBoard with soil ballast.

### Ordering Information

- For this application 1,2m or 2,4 m board lengths are practical.
- Order boards with shiplap or tongue and groove edge profiles all round.
- In South Africa 30 mm thick board will generally suffice for domestic applications, whilst up to 150 mm will be required in the ice rink/ freezer room applications.



<b>Gauteng Sales</b>	t. 012 653 8204 f. 012 653 0782 northsales@isoboard.com
<b>Cape Sales</b>	t. 021 983 1140 f. 021 981 6099 southsales@isoboard.com
<b>KwaZulu Natal Sales</b>	t. 031 700 3525 f. 031 700 2573 dbnsales@isoboard.com
<a href="http://www.isoboard.com">www.isoboard.com</a>	



*It's a whole new season*

