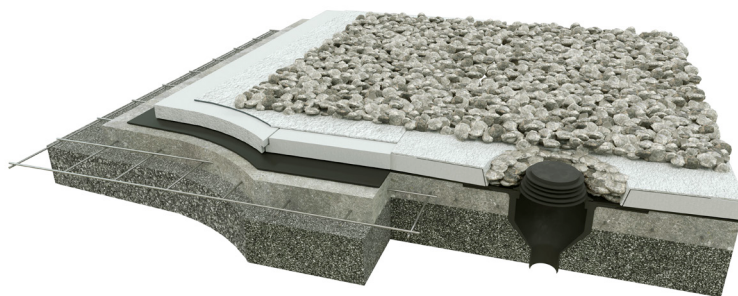


# ISO BOARD<sup>®</sup>

## ZERO ODP

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



Inverted roof with Gravel Ballast



Parapet wall with  
Box Gutter

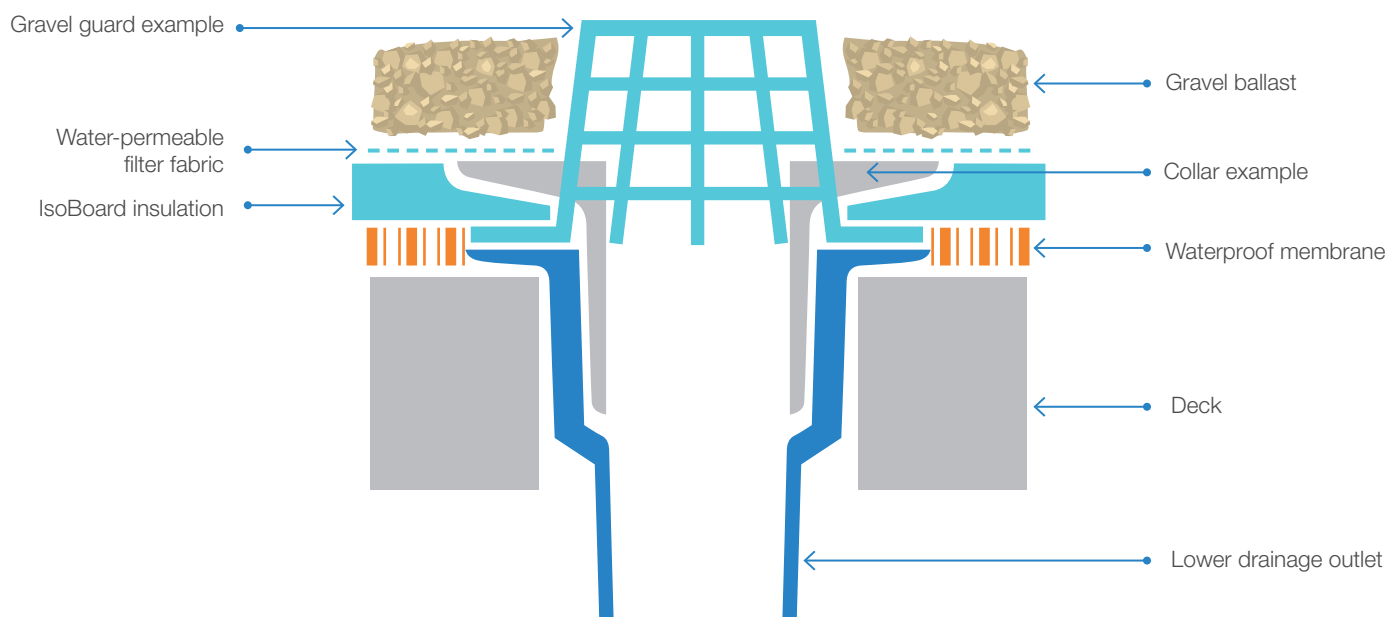


Insulated  
Green Roof



Inverted roof with  
Tiled Screed

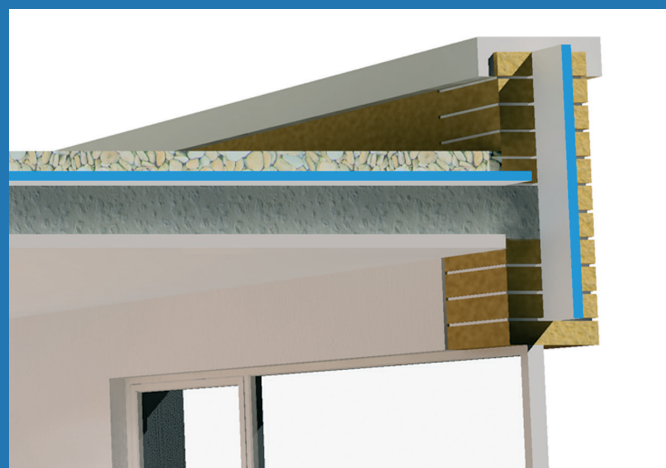
## Inverted Roof Insulation



The Inverted Roof Concept, also known as protected membrane or upside down roofing, ensures insulating both the water-proofing membrane and the reinforced concrete slab from extreme thermal stress. This is achieved by placing IsoBoard extruded polystyrene insulation board above, instead of below the waterproofing membrane.

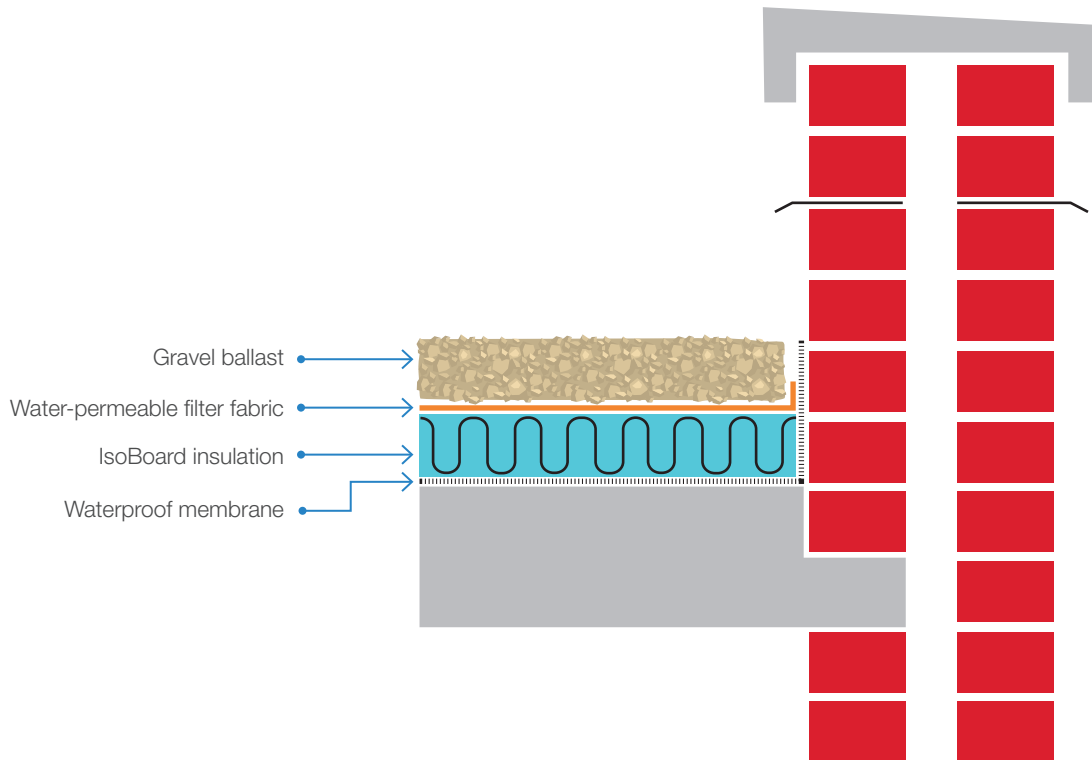
## Typical uses for IsoBoard in this application

Installed either as new or retrofit insulation above water-proofing membranes on flat topped buildings or balconies, in retail or office developments, flats, hospitals, airports, hotels and in residential housing.



## The recommended inverted roof installation method for IsoBoard

1. IsoBoard profiled all-round with shiplap or tongue and groove edge profiles is laid over the water-proofing membrane.
2. A water-permeable geofabric membrane is laid over the IsoBoard, and covered with ballast to prevent flotation or wind uplift. Ballast examples include a layer of 20mm nominal size gravel, paving slabs, interlocking bricks on a sand bed, or proprietary ring support paving systems.
3. The thickness of ballast loading required should resist flotation and wind uplift, as stipulated in the Agreement Certificate tables.
4. Rainwater outlets/downlets should be dual level, capable of accepting water from above both the waterproofing membrane and the IsoBoard layer. Verges, upstands and roof-light kerbs should be high enough to contain the insulation and ballast layer, with modifications carried out to existing buildings if necessary.
5. Maintenance on drainage downlets is important.
6. Concrete paving slabs should be laid over insulation in areas subject to foot traffic, such as access ways to lift or air-conditioning plant. Slabs need to be raised above the insulation to facilitate drainage. Slabs can be laid on a bed of pea gravel or special proprietary support rings.
7. When vehicular traffic is envisaged, the paving structure will require rational design by a competent person.



## Installation guidelines

1. Apply ballast above the insulation board to prevent wind uplift and flotation:
  - using 20 mm nominal size gravel where no traffic is envisaged
  - using paving slabs where pedestrian traffic is envisaged
  - using light weight concrete screed to falls where drainage is important
  - and below a flexible road pavement or reinforced concrete slab for parking decks.
2. Avoid placing the insulation above the slab and below the water proofing layer (warm deck installation). Moisture penetration through the slab from below will condense under the water proofing, resulting in bond failure and bubbling.
3. Higher density IsoBoard will be required for heavy duty vehicular traffic on rooftops. Conform to competent person roof system design.



## Suggested Bill of Quantity Specification

IsoBoard high density 32-36kg/m<sup>3</sup> rigid extruded polystyrene 100% closed cell insulation board of ( )mm thickness and 600 mm width with shiplap joint all round laid tightly butted on waterproofing membrane (elsewhere).

## 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. IsoBoard is easily cut to length or trimmed using a sharp knife or hacksaw.
4. Handle and install with care to prevent damage to board edges.

Contact IsoBoard for any queries with respect to the above.



## Ordering IsoBoard

- For this application boards in lengths of 1,2m/2,4m are practical.
- Order boards with shiplap or tongue and groove edge profiles.
- Consult your nearest IsoBoard sales office for advice concerning the appropriate thickness of IsoBoard required for your application.



### How to identify IsoBoard:

IsoBoard can be identified by the logo and manufacturing details on the tongue of the board. With the logo as shown, the lower face is the better face for exposed installation.

|                | 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**



**Gauteng Sales**  
t. 012 653 8204  
northsales@isoboard.com

**Cape Sales**  
t. 021 983 1140  
capestores@isoboard.com

**KwaZulu Natal Sales**  
t. 031 569 1800  
dbnsales@isoboard.com

**Bloemfontein**  
t. 051 430 1953  
bloemoutlet@isoboard.com

**Port Elizabeth**  
t. 041 453 4139  
peoutlet@isoboard.com

**Nelspruit**  
t. 013 752 2558  
nelspruitoutlet@isoboard.com

**Retreat Cape**  
t. 021 701 1859  
retreatoutlet@isoboard.com

**Northern Cape**  
Depot Only  
ncape@isoboard.com

**Garden Route**  
t. 044 492 0423  
scape@isoboard.com