

Heat gain in residential homes is largely through the roof structure. Insulated ceilings retard heat flow into the living areas in summer, and contain generated heat in winter, providing a comfortable living environment. Note that ventilation, window design and positioning of the building also affect comfort in the dwelling.

### Typical uses for IsoBoard in this application

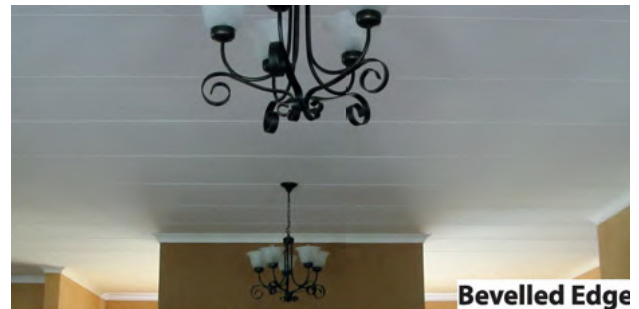
1. Residential housing installed as insulated ceiling. IsoPine grooved and bevelled finishes are options.
2. In retail developments when no insulation is provided,
3. IsoBoard is frequently retrofitted to achieve comfort and cost saving objectives, and protect the expected shelf life of perishable produce.
4. Community housing, police stations, clinics, school projects and Office developments.

### Nail-up guidelines

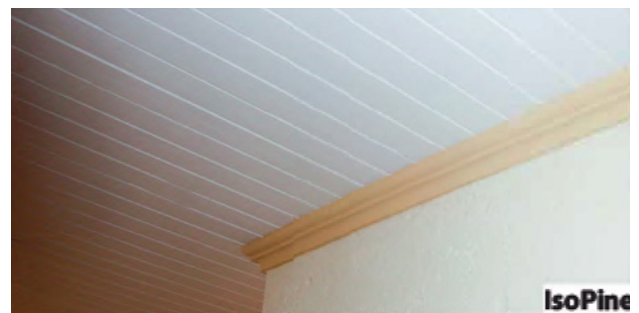
- Order either bevelled edge or "IsoPine".
- Boards to run wall to wall: avoid butt joints
- Brandering maximum 700 mm spacing, with perimeter brandering around room.
- Boards must be positively secured on ends.
- Always use adhesive, screws and concealed clips as recommended for ceiling installation.
- Ensure planned lighting is compatible with IsoBoard.
- Paint with two coats of a good quality water based matt PVA paint. Painting also prevents discolouration of boards by UV rays (reflected sunlight).
- Double fixing points where board is installed externally or in windy areas.
- Overlay IsoBoard with fibre products where sound insulation is required.

### 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 and exposed surfaces.
4. IsoBoard is easily cut to length or trimmed using a sharp knife or hack-saw.
5. Surface indentations and imperfections can be repaired using a plasterkey and crack filler paste or by applying a filler base coat.
6. Wipe boards with cloth and softened water solution to clean as necessary, prior to painting two coats of good quality PVA.



Bevelled edge



IsoPine



Retrofit nail up installation

## 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, tackfixed with recommended adhesive at 200 mm intervals to timber/ steel branderling installed at maximum 700mm centres transversely to trusses, and edge-fixed with concealed ceiling clips screwed/ pop-riveted to timber/steel branderling. Boards to be secured to perimeter branderling with drywall screws and washers at 300mm centres.

## Recommended installation

1. Fit timber or steel branderling at maximum 700mm centres transversely to the trusses, as well as all around the perimeter of each room. Increase branderling x-sectional area where truss spacing exceeds 750mm.
2. IsoBoard sheets to be of sufficient length to span branderling transversely without butt jointing. Trim boards on site, allowing for a 5mm gap to each wall.
3. Apply 5ml blobs of recommended adhesive at 200mm intervals along the branderling.
4. Fix initial panel to perimeter branderling with screws and washers at 300mm intervals, such as to be concealed with cornice.
5. Break out tongue or top of groove at each intersection of board edge and branderling to accept concealed clip into edge of IsoBoard sheet. Screw or pop rivet clip into branderling, pressing up to ensure adhesive contact. Fit subsequent IsoBoard panels, using the tongue and groove joint.
6. Trim the final board and fit to complete the installation.
7. Fit polystyrene cornice.
8. Sand grooves lightly, fill any indentations with a plasterkey and crack filler paste.
9. Wipe surface clean. Finish with two coats good quality matt acrylic paint, of which we recommend the first coat to be an acrylic filler-coat, to cover minor surface indentations and imperfections.
10. Contact with ANY solvents or solvent-based products will damage the boards. Only water-based cleaners, adhesive and paints to be used.

### Using IsoBoard externally under eaves and verandas and in windy areas:

Halve the branderling spacings and double the number of clips/screws and adhesive fixing points where IsoBoard is installed externally or in windy areas. This is to accommodate the effect of wind and air pressure differences. Painting is required to avoid discolouration.

### Sound Insulation:

IsoBoard is a thermal insulator and should not be used in isolation to achieve noise reduction. Please consult a specialist with respect to noise reduction systems. (Generally a wool blanket will reduce sound transmission.)

## 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 25, 30, 40, 50mm boards. Tolerance  $\pm$  5mm. Enquire availability of lengths of thicker board.
- Thicknesses range from 25mm, 30mm, 40mm up to 80mm, with board thicknesses of 50 mm and above made to order
- IsoBoard can be ordered with the Isopine surface finish, which looks similar to a tongue and groove pine surface, having grooves at 100mm centers down the length of the board, or, with bevelled edge, to achieve a panelled look finish.
- IsoBoard is always 600mm ( $\pm$  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.

## Lighting and IsoBoard ceilings

Lamp holders fixed through Isoboard should be fitted with lamps generating heat not exceeding temperatures of 70°C. Above this temperature Isoboard will soften and retract from the heat source.

Space fluorescent lamp holders (with fitted ballast) approximately 3mm away from IsoBoard using washers, and fix to supporting branderling or trusses. Use Energy Saver lamps when installing other lamp fittings in close proximity to IsoBoard. Heavier light fittings should always be hung from timber fixed above the IsoBoard.

**Downlighters:** Lamp fittings to be of swivel type.

We only recommend Energy Saver or LED lamps be used. For 12V installations, position transformers off the board on battens/truss and 200mm away from the lamp fittings. Allow a minimum of 150mm airspace above the IsoBoard for sufficient ventilation.

*Flush look ceilings are not recommended due to the special skills and time it takes to achieve an aesthetically pleasing result. Please consult with IsoBoard before attempting this finish.*

