



TAPERED INSULATION

SCHEMES TO CREATE
FALLS ON ROOFS

BAUDERPIR FA TAPERED INSULATION

Creating effective and consistent drainage falls on flat roofs

The NEW BauderPIR FA Tapered Insulation with innovative ridge and valley formations is lightweight, convenient, easy to install and a cost effective alternative method of providing falls to a roof instead of incorporating them into the structure.

The Insulation, is a foil faced closed-cell rigid Polyisocyanurate (PIR) board. It is both strong and inert and has a good compressive strength. The low thermal conductivity allows for the insulation to be of a reduced thickness compared to many other well-known insulants, such as polystyrene, mineral wool or cellular glass.

Suitable waterproofing systems

The FA Tapered Insulation can be incorporated in to all our warm roof construction waterproofing solutions, bitumen membrane systems, single ply and cold liquid applied.

Tapered scheme design service

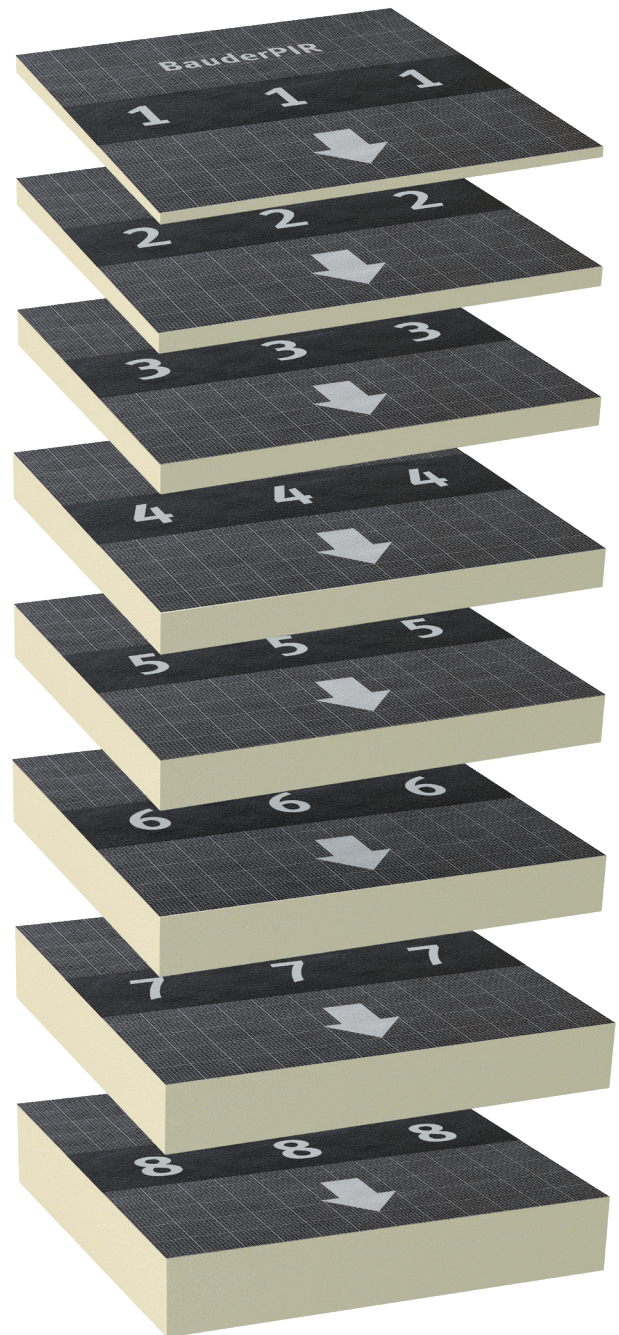
Your local area technical manager will assist with the tapered insulation proposal for the project and our technical department will design the bespoke tapered insulation scheme in accordance with the latest versions of BS 6229 for falls on flat roof surfaces and BS 5250 for control of condensation in a building. This team can also provide bespoke U-value calculations in accordance with BS 6946 Annex E (Calculation method) to confirm the thickness required and/or U value achieved and will also provide a layout design service to aid with installation on site.

Key features and Benefits

- Greater flexibility to create complex fall configurations.
- Can be retrofitted on an existing building in refurbishment projects.
- Design utilising ridge and valley infills unique to Bauder with patent pending.
- Only one ridge and one valley infill size required for whole tapered scheme. Traditionally, many ridges/valleys required for the same application.
- Layout schemes designed for minimal waste.
- Easy to handle and quick to install.
- Tested with Bauder waterproofing systems.
- Multi-layered schemes easily created to deliver falls over a large roof area.

Environmental Credentials

- CFC and HCFC free giving zero ozone depletion potential (ODP) with a GWP (Global Warming Potential) of less than 5Kg CO₂ - Eq/Kg.
- Environmental Product Declaration accreditation, certificate number EPD-IVP-20140207-IBE1-EN.
- All offcuts and waste from our manufacturing process for PIR are readily recycled and used in the production of hand cleansers and decking materials.
- Embodied energy of our rigid polyurethane PIR insulation accounts for as little as 4% of the energy the board can save during its serviceable life.



Technical Credentials

- Creates 1:60 falls on a flat roof.
- Superior thermal performance and maintains thermal performance throughout life-cycle of roof system.
- Every tapered scheme is designed to match the needs of the project and meet building regulations for thermal performance of the roof.
- Good compressive strength - resists physical damage.
- Achieves B_{ROOF} (t4) to TS 1187 and BS EN 13501-5 when used in a Bauder warm roof system.
- Complies with BS EN 13165 Thermal Insulation Products for Buildings.

ON SITE CONSTRUCTION OF FALLS

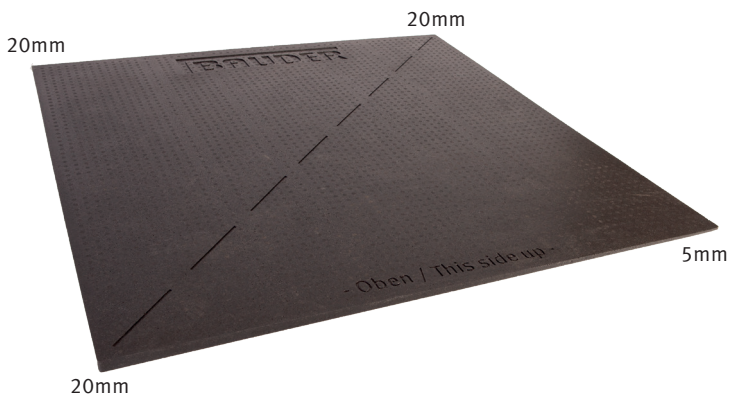
The BauderPIR FA Tapered Insulation is faced on both sides with black aluminium foil to increase thermal efficiency and is available in various thicknesses to achieve the required fall and achieve the desired thermal requirements. The patent-pending unique ridge and valley infill boards are combined in conjunction with the Bauder FA Tapered boards to simplify the scheme and installation.

Most tapered schemes will start with the use of a 3-board, 70-90mm at its lowest point, to meet thermal requirements under building regulations.

The FA Tapered Boards

The tapered boards are numbered 1-8 for ease of installation, are 1200 x 1200mm with a 1:60 gradient on each board, and span in height from 30mm at the front edge of a 1-board to 190mm at the back edge of an 8-board.

Ridge Image and Thickness Dimensions



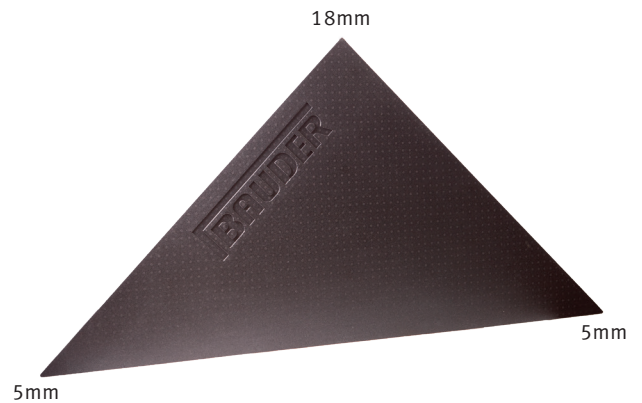
Ridge and Valley Solution

The unique ridge and valley infill boards are combined in conjunction with the BauderPIR FA Tapered boards to simplify the scheme and installation.

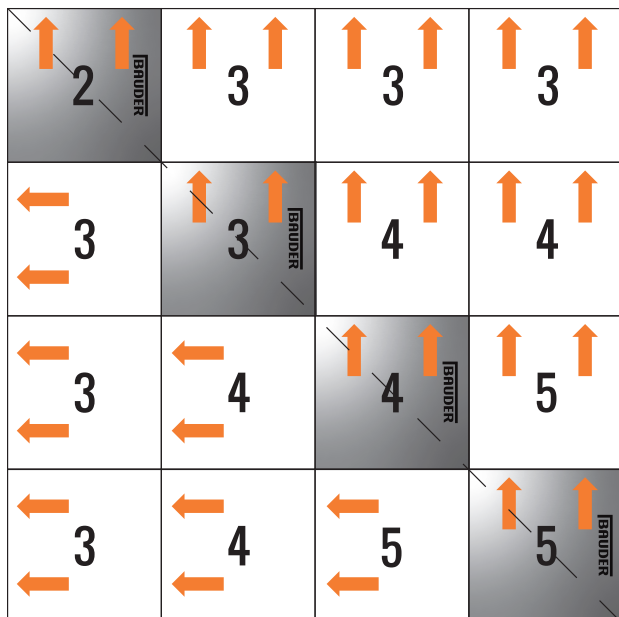
The Ridge Infill pieces split the direction of falls so that the water can run off the roof in opposing directions. The infill is bonded to the underlying FA Tapered board which is one size thinner than the row of boards creating the scheme so that the infill packs the space, bringing all board levels flush.

The Valley Infill pieces ensure the water can run off the roof in one direction at the point of two boards meeting. To achieve this a tapered board is placed next to another tapered board with the fall against the adjacent board. This creates a water check, then the valley infill piece is incorporated on top to create the valley fall in one direction.

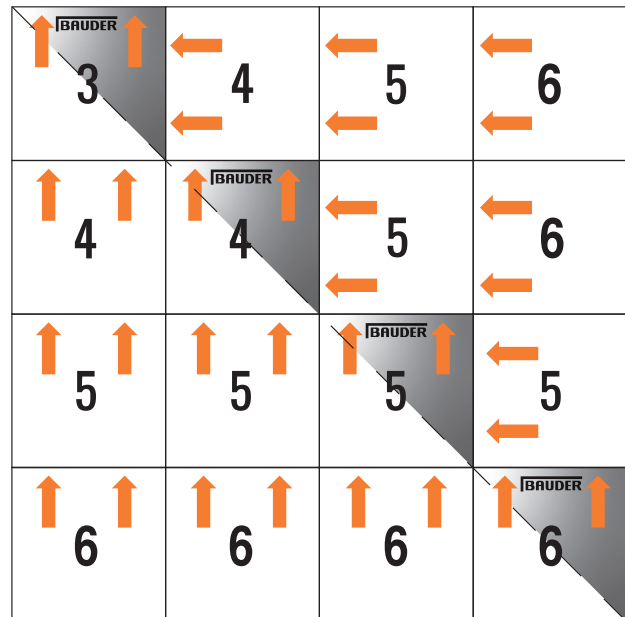
Valley Image and Thickness Dimensions



Example of Ridge Layout below

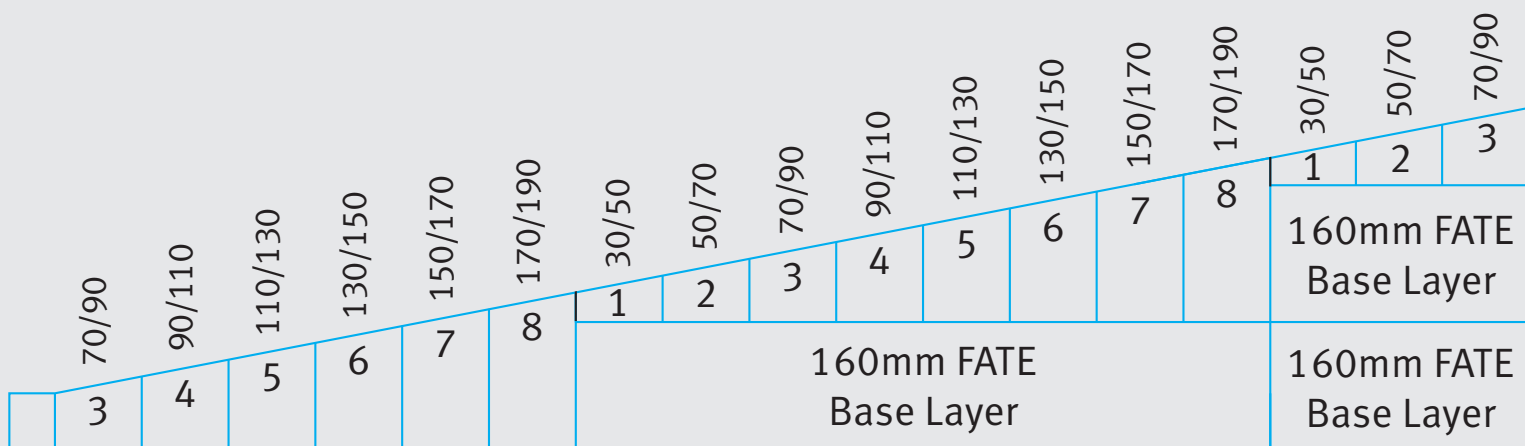


Example of Valley Layout below



Multi-Layered Schemes

The tapered boards are used in a step-and-repeat manner when multi-layered designs are required. In these situations the BauderPIR FA-TE 160mm foil-faced boards are used to form the required base layer beneath the tapered boards.



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