

ROOF LININGS

Junction of Compartment Wall with Roof

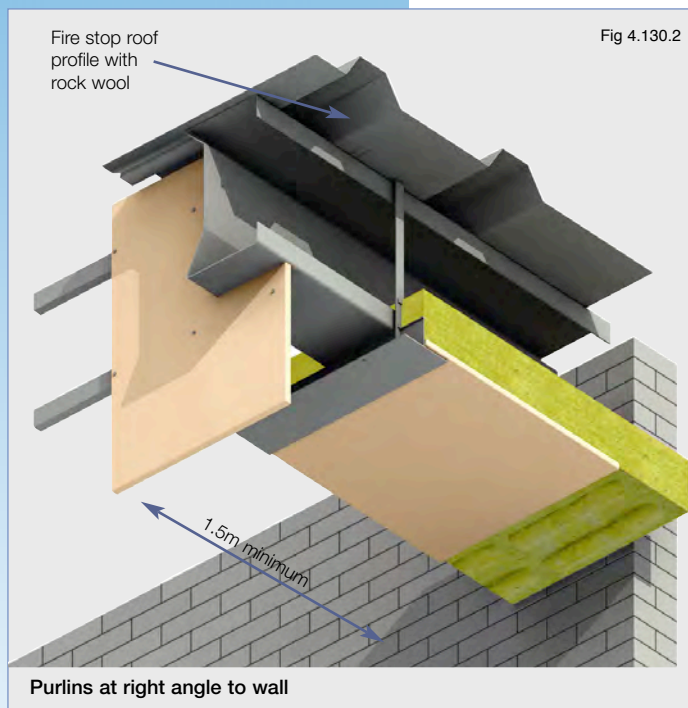
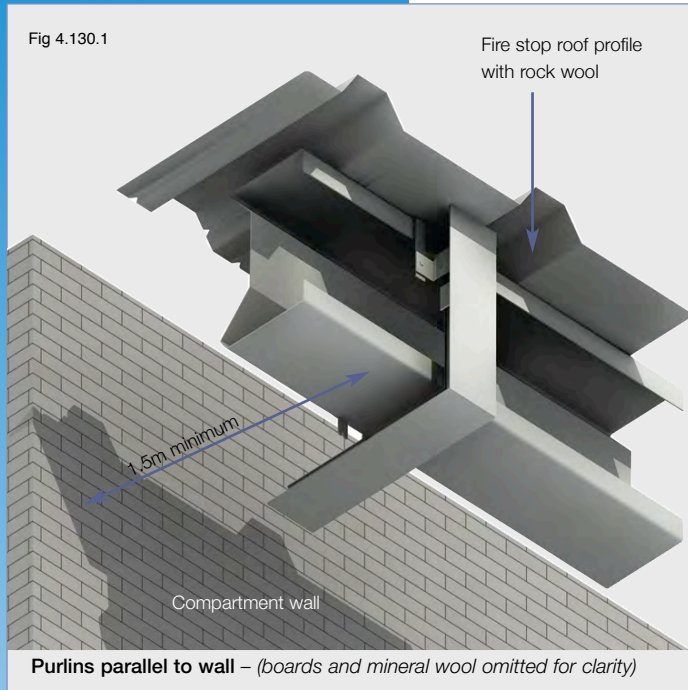
If a fire breaks out near the area where a compartment wall meets a roof, there is a risk that it will spread over the roof to the adjoining compartment. To reduce the risk, Approved Document B requires protection to be installed to a protected zone of the roof 1500mm either side of the compartment wall. However, for more onerous circumstances, the FPA Design Guide suggests a minimum of 2500mm, or up to 5000mm dependent upon the orientation of the ridge and the presence of a sprinkler system. Please contact Promat UK Technical Services for further guidance on protected zones (see also page 151). These are referred to as protected zones. If the roof does not have a continuous fire-protective lining, the necessary protection can be provided with a board lining in Promat FLAMEBRAKER™ Grid; details of the return up to the roof covering are described below and shown in the illustrations.

Purlins Parallel to the Wall

The Promat FLAMEBRAKER™ Grid is cut and turned through 90° and fitted next to the purlin by means of a strap and angle bracket as shown in the drawing. Boards are fixed parallel to the purlins and held in place vertically in the grid by means of spring wedges and supported horizontally on angles (not shown in the drawing) fixed to and spanning between the main tees of the grid. Boards are laid horizontally in the grid in the normal fashion beneath the purlins with the mineral wool insulation being laid on top of the boards, and used to line the vertical boards. Roof profile should be fire stopped with rock wool.

Purlins at Right Angles to the Wall

Boards are fixed horizontally below the purlin with the insulation laid on top as shown. Vertical boards are cut to fit within the purlin and fitted flush with the underside of the roof deck and lined with rock wool. Any gaps in the purlin are fire stopped with rock wool. Boards are fixed at the base to an angle fixed to the main tee of the grid and also fixed to another angle spanning between, and fixed to, the purlins. Roof profiles should be fire stopped with rock wool. For more information regarding the fire protection of protected zones, please contact the Promat UK Technical Services Department.





The Passive Fire Protection Handbook

Chapter 4: Ceilings, Floors and Roofs - Roof Linings

Certifire Approval No CF 420

STEEL SHEET ROOFING

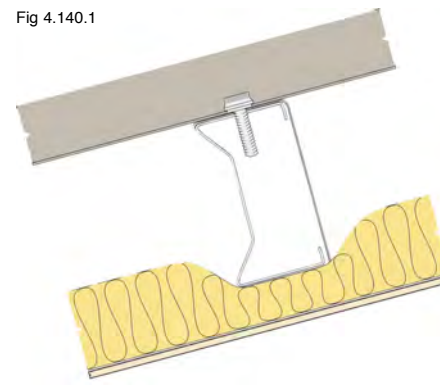
Table 4d Fire Resistance (minutes)

Stability and Integrity	Insulation	Specification
60	30	<p>Lining: 6mm Promat SUPALUX®, maximum size 1800mm x 600mm, laid in Promat FLAMEBRAKER™ Grid. Panels fixed using steel hold-down clips at 300mm centres. Main tees suspended at maximum 1800mm centres.</p> <p>Infill: Rock wool minimum 70mm thick (33kg/m³) laid over panels and building up to sides of main tees and cross tees. The insulation is also fitted to the inside of vertical panels, held in place with steel wire lacing (minimum 1mm diameter) at 150mm nominal centres.</p>

NOTE 1: These specifications do not cover the use of composite cladding systems with combustible cores. For more information on protection of these systems, please contact Promat Technical Services.

NOTE 2: Further details on requirements for protected zones and details of alternative systems are shown on pages 151-154.

Fig 4.140.1



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Promat FLAMEBRAKER™ GRID COMPONENTS

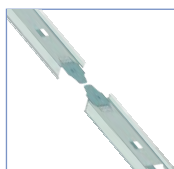


Fig 4.150.1

Main tees

35mm x 35mm x 3600mm long, punched at 150mm centres for cross tees and spring wedges. Main tees have splice tabs at both ends to form interlocking joints.

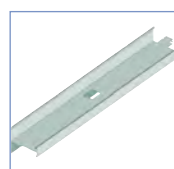


Fig 4.150.2

Cross tees

35mm x 35mm x 603mm effective length, punched to hold spring wedges.



Fig 4.150.3

Fixing straps

18mm wide x 300mm or 450mm long, split and notched at one end to allow snapping on to main tee stalk. No drilling or screwing is required.

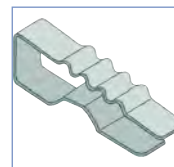


Fig 4.150.4

Spring wedges

11mm x 17mm x 60mm long, corrugated to prevent slipping. Suitable for both 6mm and 9mm thick boards.

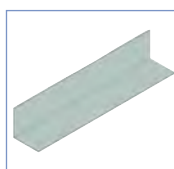


Fig 4.150.5

Angle trims

90°, 120° or 135° angles are available in galvanised steel (size 25 x 25 x 3600mm long).



Fig 4.150.6

Insulation retaining clips

Used to retain insulation in vertical or steeply sloping installations, 15mm wide x 140mm long with 80mm split ends. Clipped on to main tees, ends simply bend out to retain the insulation.

Promat FLAMEBRAKER™ Components Detail

