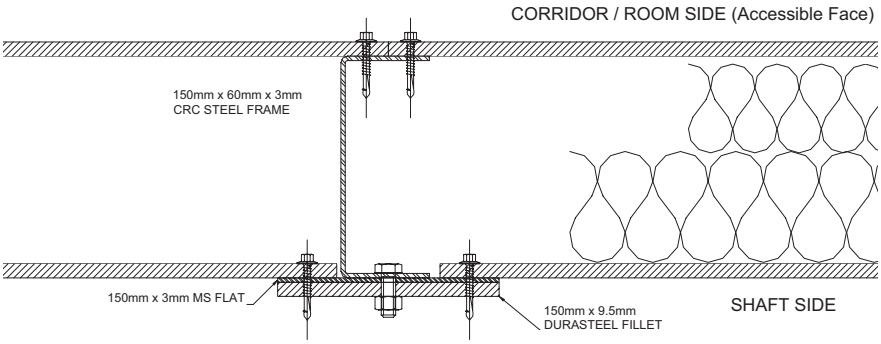
DURASTEEL® SHAFT WALL FIRE BARRIER



FIRE RESISTANCE:
240 minutes integrity - 120 minutes insulation. (Fire attack from either face)

CHANNEL (MINIMUM):
80mm x 60mm x 3mm
(for heights up to 6m)

OVERALL WIDTH:
121mm

WEIGHT (NOMINAL):
67 kg/m^2

ESTIMATED SOUND REDUCTION:
47 dB

Perimeter channels fastened to surrounding construction with M10 or M12 all-steel expanding anchors (or equivalent for alternative types of supporting construction) at 500mm maximum centres.

The vertical channels are set at a maximum 1200mm centres. Horizontal and vertical channel members either welded together or joined with steel angle cleats, minimum 60mm x 60mm x 3mm thick x 60mm long, fastened to each channel member with two M10 steel bolts and nuts.

150mm wide (210mm wide for barriers above 9m in height) x 9.5mm Durasteel® fillets (for number see table below), together with a 3mm steel plate are fastened to the non access face of the channel frames (horizontal and vertical), using M10 nuts and bolts at 500mm centres. A 9.5mm Durasteel® facing sheet is fastened to the inside face of the fillet construction above with M5.5 steel self drill and tap Tek screws at 250mm nominal centres. Fixings a minimum of 12mm and maximum 20mm from board edge and a minimum 50mm and maximum 100mm from corners (ie 2 fixings per corner) in accordance with the Etex Building Performance Limited Durasteel corner fixing statement.

Length of fixing to be sufficient to ensure appropriate penetration of screw thread in accordance with screw manufacturer's recommendations.

Rock wool infill, according to the table below is fitted into the channels (see table below). The layers are staggered by a minimum of 150mm.

A 9.5mm Durasteel® fillet is only required to the accessible side of 80mm x 60mm channels, to overlap the channel by a minimum of 20mm on both edges – see table below. The barrier is finished with the Durasteel® facing boards using M5.5 steel self drill and tap Tek screws at 250mm nominal centres.

Vertical board joints coincide with studs, horizontal board joints are backed by steel channel the same size as the vertical studs (Including the fillets details).

Expansion allowance will be required for barriers above 4 metres high. Please contact Etex Building Performance technical team for further information.

STEEL CHANNEL SIZES FOR BARRIER HEIGHTS UP TO 15 METRES

Height of Barrier (m)	Channel Size (mm x mm x mm)	Durasteel® fillet (accessible face)	Durasteel® fillet (non-accessible face)	Rock wool infill (minimum)	Estimated Sound insulation Rw (dB)
0-6	80 x 60 x 3	1	2	2 x 40mm x 140kg/m^3	47
6-9	150 x 60 x 3	0	1	100mm + 40mm x 80kg/m^3	50
9-12	Two 150 x 60 x 3 back to back*	0	1	100mm + 40mm x 80kg/m^3	50
12-15	Two 200 x 60 x 3 back to back*	0	1	3 x 60mm x 80kg/m^3	52

Note: * Where back to back channels are required, these are fastened together with M10 steel bolts and nuts at 500mm maximum centres. The vertical joints in the Durasteel® should be offset by 30mm from the centreline of the back-to-back studs, to avoid a straight through path for hot gases.

Horizontal channels are single channels.

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