

Substrate Specification Sheet 12

Wall Structure to Support ArmourCast Panels

1 General Requirements

ArmourCast panels are cast from a mould and will be dimensionally accurate to within +/- 1% . It is important that the wall to which the panels are to be attached is a flat and true plane. Discrepancies or undulations in the substrate will make the panel installation significantly more difficult and cause issues of panel misalignment.

2 Suitable Substrates

- Aluminium framed cladding system for concrete or block work walls.
- Metal or wood framed studwork wall with one layer of plywood or MDF followed by a layer of plasterboard.
- Metal or wood framed studwork wall with two layers of 12.5mm plasterboard.

3 Aluminium Support System

The Euro fox Panel cladding support systems can be fixed to most substrates such as concrete, block work or brickwork. It offers a fully adjustable support framework to which the ArmourCast panels can be fixed by means of either a mechanical or adhesive system. This cladding system can take out irregularities in the substrate to provide a flat and level plane to which the panels are applied. The Euro fox system requires a minimum distance of 40mm from substrate and can accommodate a build up of up to 240mm.

The Euro fox system can also be used to establish a suitable support frame on curved surfaces or to create interior cylindrical drums.

The Mac fox MTK system provides a suitable framework structure for fixing the panels by means of the Sika-tack panel adhesive system or Euro fox MLZ/k secret fix aluminium channel hanger system.

For details of fixing systems see below.

For full details and specification information on the Euro fox system please visit:<http://www.eurofoxengineering.com>

4 Drywall Construction

ArmourCast panels will have a weight loading of 15 – 20 kg per sq metre. It is therefore necessary to consult with the Drywall manufacturers for advice on loading limits for the various metal framing studs.

80mm x 50mm wooden studs at 400mm centres are adequate for this loading.

A layer of 12.5mm plywood or MDF is screwed to the studs at 200mm centres , and the whole surface is overlaid with a single layer of 12.5mm plasterboard.

The joints must be taped and filled flush with the board surface.

5 Fixing System

5.1 SIKA-tack panel adhesive system.

The SikaTack –panel adhesive system is suitable for permanently fixed panels where the panels are of a constant thickness. It can be used onto the Aluminium support system, or for direct adhesion to a flat wall surface.

The system comprises a permanent fix adhesive and a panel fixing double sided tape to hold the panel in position whilst the adhesive sets firm.

For full details on the Sika Tack system please visit:
<http://www.sika.co.uk/uk-home/uk-con/uk-constr-elbond-sealing-2.htm>

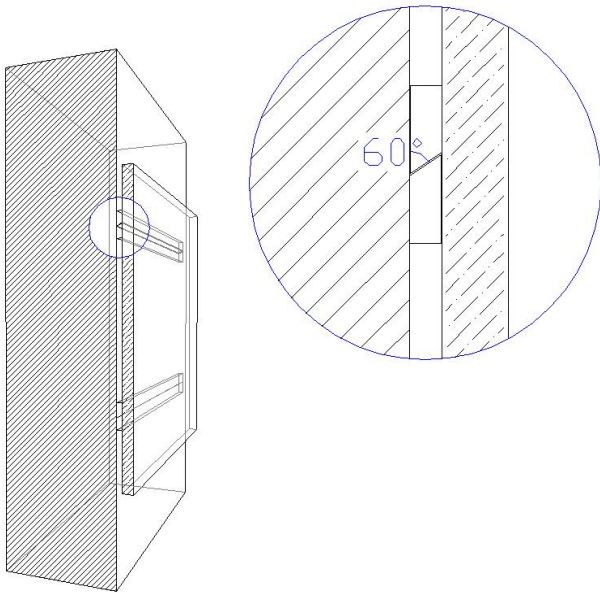
5.2 Eurofox MLZ/k secret fix aluminium channel hanger system.

This is a well engineered fixing system for stone panels that offers adjustment both vertically and horizontally for precise panel alignment. The panels are removable but each panel is not independently demountable where the shadow gap is less than the 15mm depth on the hanging clips.

5.3 Wooden split batten

This is a simple and cost effective system for hanging small numbers of panels, mirrors and bas relief designs. It offers limited adjustment horizontally and vertically, but can become very time consuming when fixing larger numbers of panels where accurate alignment is necessary.

Battens are cut with one angled face approximately 30 degrees off square. Two battens or more are fixed back to the substrate and the corresponding battens fixed the other way up to the rear face of the panel. The panel then drops down onto the wall mounted battens and is held in place by gravity.



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