

## Tips for Installing

### White Metal Structural Glass Balustrade

#### 1. Fitting of Channel to Substrate

The channel should be securely fitted to the substrate as per your structural engineer's recommendations.

- a. Ensure the heads of the fixings are sufficiently countersunk or counterbored to allow ample clearance between the head of the fixing and the glass. The base rubber packer provides about 10mm clearance off the bottom of the channel.
- b. The fixing must create a good seal between itself and the channel (to stop the grout leaking out). It may be necessary to put some silicone sealant in the hole before fixing down.
- c. All joints/mitres in the channel must be tightly butted up and sealed (to stop the grout leaking out). It may be necessary to put some silicone sealant in the joint before fixing down.
- d. Insert the rubber stops to the ends of the channel and hold in place with tape if required.
- e. Using a level, ensure that the channel is plumb before installing glass.

#### 2. Positioning & Levelling Glass:

- a. Place two (or three on large panels) of the 'U' section base rubbers on each glass panel prior to lowering it into the channel. It is important not to have too many base rubbers as this hinders the grout from flowing underneath the glass.
- b. The glass must then be roughly wedged to keep it upright. We recommend that the balustrade should be fully made up before grouting (ie. handrail fitted etc.) to ensure compatibility – once the grout has gone off it is difficult, if not impossible, to make any changes.
- c. The glass should then be finally aligned and plumbed up. Make sure the gaps are equal. It is extremely difficult to realign the glass once the grout has been poured. All glass panels need to be installed into the channel before grouting.
- d. The wedges can be tapped into place with a bit of wood and rubber mallet. The tops of the wedges must either be below the top edge of the channel or protruding far enough to be removed once the grout has set. Ensure the glass is still central to the channel.

### 3. Grouting In:

- a. Mask off, in various places, both the channel and glass to prevent grout marking them. As the grout is about the same consistency as double cream, it is not always necessary to mask the entire lengths, but just various points on both sides. Finally, re-check the installation, alignment etc.
- b. Only mix up enough grout for the job at hand. The grout should be mixed up using a mixing paddle in a drill and by pouring the grout into the water. The desired consistency is similar to double cream, but still able to easily flow/pour.
- c. We recommend you mix up a cup full first just to get a feel for the product and check the time for the product to go off.
- d. Fluid consistency for pouring requires about 250ml of water per 1kg of grout. If too runny, add more grout.
- e. Slowly pour the grout into the channel using a funnel (ideally with a flexible neck). Give the grout time to find its' own level and top up where necessary. **Do not overfill.**
- a. The grout is **very quick setting** – depending on the temperature and the original consistency, it takes between 5 – 30 minutes to go touch hard, although it is **several hours** before it reaches full strength.



### 4. Installing the skirting (cladding):

- a. Finally run 2 thin beads of silicone along the inside face of the skirting and any end caps. Position the skirting in place and ensure that it is hard up against the channel over the whole length. If necessary, hold the skirting in place using low tack tape. This is easily removable once the silicone has set.
- b. The end caps and corner pieces fit OVER the skirting (this allows a small amount of tolerance in the skirting length) and should be put in place immediately as this helps hold the skirting on while setting.

Minimum installation temperature is +50C. The grout sets in 20 to 30 minutes at 200C and can be loaded after 1 hour.

As the grout is water based, it can be installed in light rain. However, we do not recommend trying to install it in heavy rain, as this would dilute the grout, and it would be difficult to work with.