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SSS007: Substrate Specification Sheet 7 - MDF

Armourcoat QA Working Specification Applying Polished Plaster to MDF Panels

1 Introduction

Polished Plaster adheres well to MDF as can be seen from the samples we send out. It will give an amazing finish to fixtures and fittings constructed from MDF but there are **strict guidelines** for design and construction that **must** be adhered to.

Plastering over a junction between MDF panels will almost inevitably result in cracking. We have experimented extensively with many different grades of MDF and many different construction methods but have never successfully overcome this problem long term. **MDF always shrinks.**

The only way we recommend using Polished Plaster to coat an MDF structure is as follows:

2 Detailing of MDF Panels

The polished plaster cannot form a continuous surface over a join between panels without the likelihood of a crack forming. The design must therefore avoid this detailing by either using panels without joins or by machining a rebate at any junction. See Figures 1 to 2 overleaf. This rebate ensures that the polished plaster does not bridge a join between panels and can be painted in a colour to match the polished plaster or filled with mastic. The use of mastic can add to the impression that the panels are made from stone. While a crack is likely to form in a painted rebate, the shadow formed in the rebate will de-emphasise the crack.

Avoid fixing through the face of the MDF wherever possible. MDF shrinks in thickness slightly and this can cause the filler over fixings to protrude slightly several months after completion. Don't whatever you do use a water based filler on countersinks as this causes them to swell making this problem worse.

Using a good quality moisture resistant MDF such as is made by Medite minimises these problems.

3 Preparation of MDF

- All MDF panels must be at least 18 mm thick.
- Ensure that the MDF is totally dry to avoid shrinkage or de-lamination problems
- Fill any holes or countersinks in panels with 2 pack polyester wood filler (avoid face fixing).
- Any corners to be plastered need to be blunted to roughly 2 mm radius with sandpaper. **We will not apply polished plaster to rebate edges.**
- Apply 1 coat of Zinsser BIN primer (shellac based) to all sides of the MDF panel by either brush, roller or spray. If water from the polished plaster penetrates into the MDF, it will cause it to swell and warp, so all sides should be sealed in this way.
- Leave to dry for a minimum of 3-4 hours before applying 1 coat of Armourcoat K40 Primer (acrylic based primer). Leave to dry overnight before applying the Armourcoat resin bonded Keycoat to the surface.

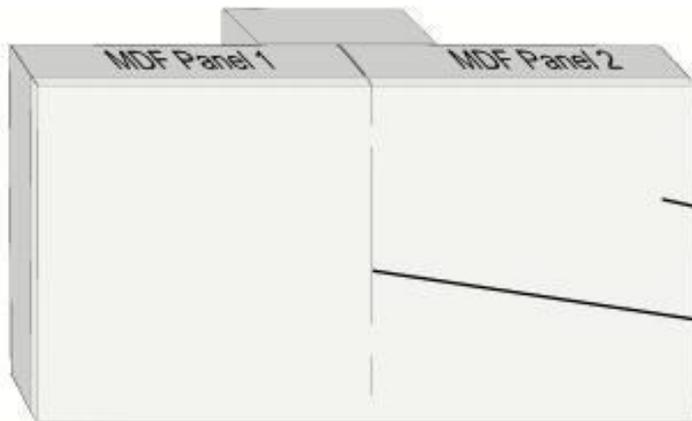
4 Finishing the Rebates

The edges of the polished plaster will reveal the backing coats (off white) as can be seen on the Armourcoat samples. To cover these edges, the rebates should be finally treated after the polished plaster has been applied.

Once the polished plaster application has been completed, mask the edges of the polished plaster and clean the rebates with sandpaper to achieve a crisp edge.

1. Paint on top coats to rebates using **water-based** paint or use mastic as described in section 2.
2. Mastic rebates using water based, oil free mastic such as acrylic decorators filler / caulk. Oil based paint or mastic can soak into the edge of the polished plaster and cause staining

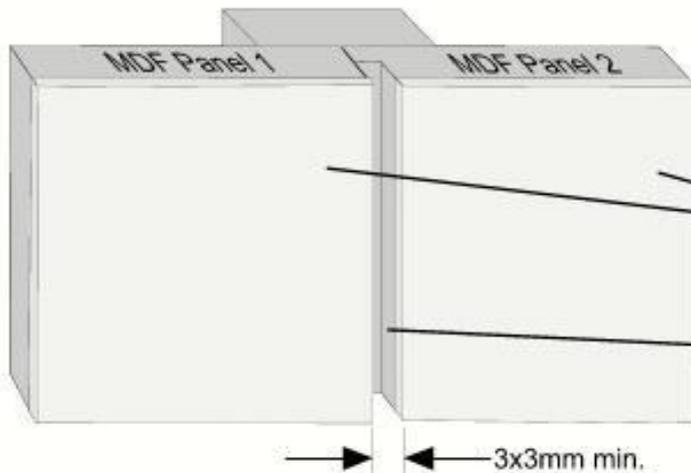
Joining MDF Panels



CONSTRUCTION METHOD LIKELY TO RESULT WITH CRACKING FIGURE1

Polished plaster

Even with good support behind the join between the MDF panels, cracking is likely to take place here.



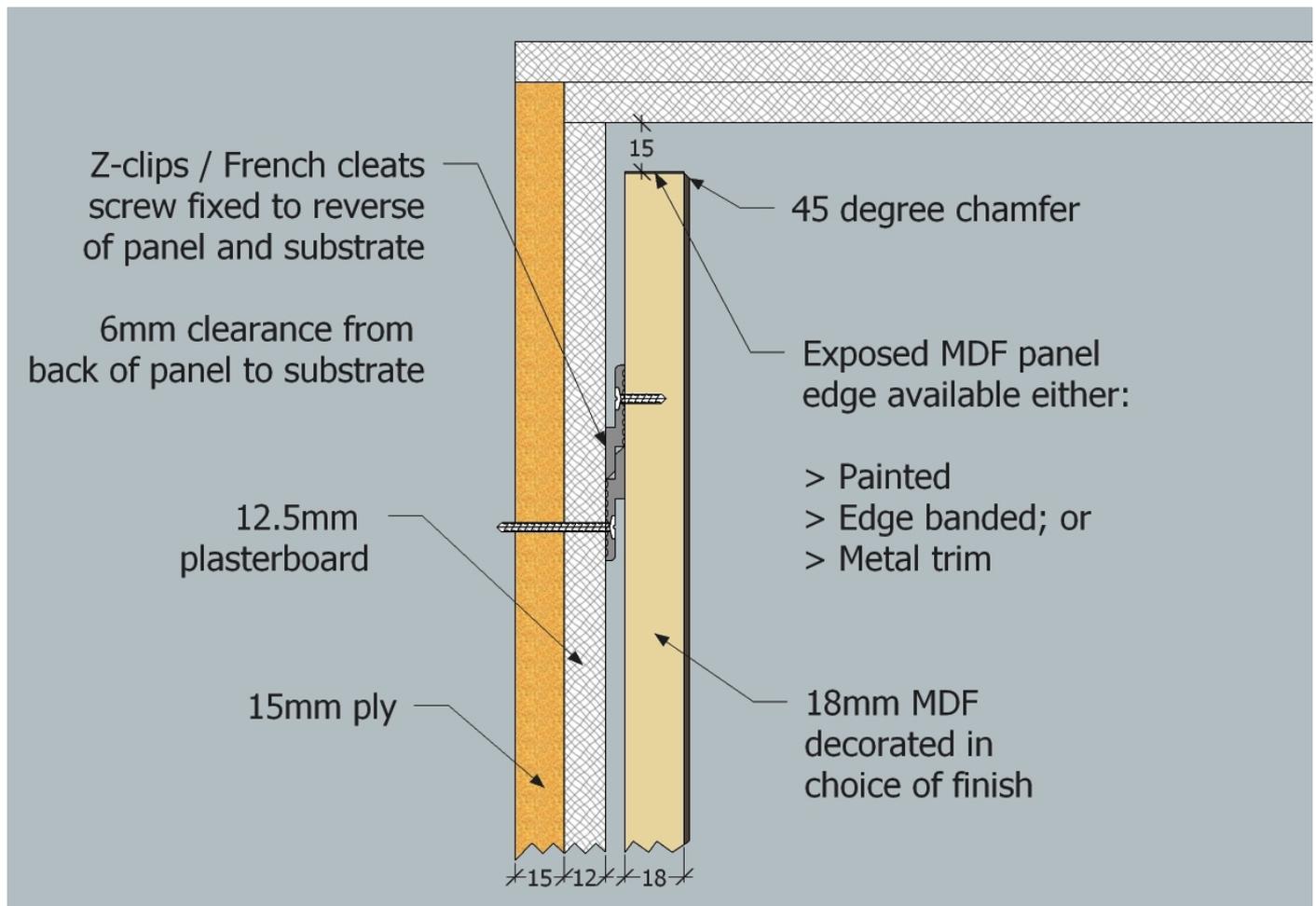
CONSTRUCTION METHOD NECESSARY TO OVERCOME CRACKING FIGURE2

Polished plaster

Polished plaster must not bridge the rebate. Rebate may be painted or filled with mastic according to Armourcoat specification - see notes.

→ ← 3x3mm min.

Detailing for Armourcoat finishes on MDF substrates



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