TECHNICAL BULLETIN – TB123

SURFACE PREPARATION FOR COMPRESSED FIBRE CEMENT SHEET

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INTRODUCTION & SCOPE

Compressed Fibre-Cement Sheet is a common and durable flooring material used for decks, verandas, and internal floors. It is particularly effective in wet-area floors such as bathrooms and showers. In this bulletin, we will examine the surface preparation required to obtain a good bond for ceramic tile adhesives and membranes.

BACKGROUND INFORMATION

Compressed Fibre-Cement sheet (CFC) is or has been available in thicknesses ranging from 6 to 24mm. In flooring applications, the minimum thickness is 15mm, with the thinner 6-12mm versions used for facades and fascia panels, which are rarely tiled.

This product was originally manufactured in Australia with asbestos-reinforcing fibres, but from the early 1980s, it was converted to asbestos-free. Sheets laid between 1966 and approximately 1982 will contain asbestos as the reinforcing fibre, and the instructions described in this bulletin DO NOT apply to Compressed Asbestos Cement Sheets. When unsure about the sheet's age or composition, do not sand, and look for the asbestos warning sticker on sheets manufactured after the mid-70s.

Compressed fibre cement sheet is manufactured to comply with AS2908.2 from laminations of uncured fibre cement that are placed in a press and compressed by 20% between steel plates. This results in a 30% increase in density and surface hardness, with a corresponding decrease in surface porosity compared to 'medium density' fibre-cement used for walls (i.e., Villaboard™, Duraliner™ or Wallboard). The steel plates also produce a smooth and sometimes slightly shiny surface, and a mould release oil may have been used in the pressing process. The finished sheets often have a slightly dusty surface, which creates a bond-breaking layer.

While it is common practice to prime this surface prior to applying paint finishes, heavier loadings applied by decorative finishes such as tiles require physical bonding into the CFC surface.

The nature of Compressed Fibre-Cement is such that the surface may require some preparation to achieve a satisfactory bond as in a few cases de-bonding of adhesives has occurred.

SURFACE PREPARATION

The following general surface preparation is suggested –

- Lightly sand the surface to produce a roughened and porous finish – Note: Use appropriate personal protective equipment (respirator or dust mask) and vacuum dust extraction on the sander.
- Vacuum the surface to remove any dust residues
- Prime the surface with
    - ARDEX MULTIPRIME
    - ARDEX WPM265 WATER-BASED PRIMER,
    - ARDEX WPM270 SOLVENT BASED PRIMER,
    - ARDEX P9,

- ARDEX P82 (dry internal only),
- ARDEX WPM300 ± Broadcast sand (normally for external applications).

➢ Apply the appropriate flexible tile adhesive &/or membrane.

The application of ARDEX flooring cements onto Compressed Fibre-Cement is covered separately in other bulletins. Refer to ARDEX Technical Services for these bulletins if required.

CONCLUSION

Tiling or waterproofing on Compressed Fibre Cement Sheet is a simple application, and some surface preparation will ensure the installation's long service life.

Where there are any doubts about the sheet composition, do not sand, drill or grind the sheets, and contact the manufacturer for advice on handling renovations or other building changes.

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Duraliner™ is a registered trademark of BGC Australia Pty Ltd.

Wallboard is a product name of CSR Building Products.

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