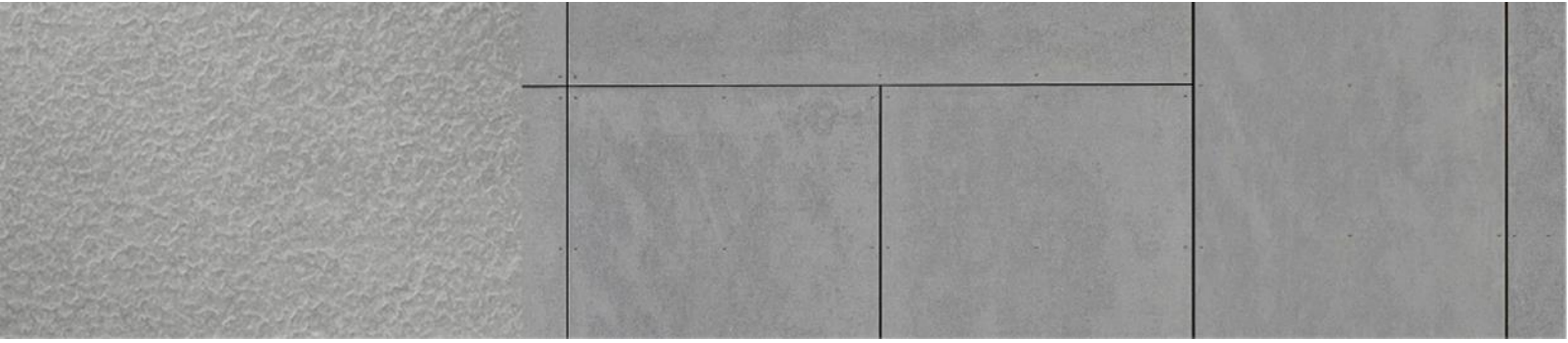

EQUITONE
Fibre cement facade materials

EQUITONE [lunara] Material Specification Sheet

This document is a comprehensive specification template intended to support the incorporation of EQUITONE fibre cement materials into project documentation. While it provides detailed guidance, it is not exhaustive and should be reviewed and adapted to suit the specific requirements and conditions of each project.

1. Materials

1.1 Cladding/lining

1.1.1 Material: Through-coloured high-density fibre cement

1.1.2 Brand: EQUITONE

1.1.3 Manufacturer: Etex, 10-20 Jordan Close, Altona VIC 3018, +61 3 9988 2290

1.1.4 Finish: Lunara

1.1.5 Colour(s): *Specify the colour[s]*
LA20 Pebble, LA60 Hessian

1.1.6 Dimensions:

- Panel size: 1220mm wide by 2500mm or 3050mm long
- Panel thickness: 10mm

1.2 Panel fixings

1.2.1 Fixing type: *Specify the desired fixing system*

- Face-fixed to metal framing: Colour-matched Proprietary UNI Rivet or UNI-Metal Screw systems ensuring a *3-way movement allowance for a stress-free connection*
- Face-fixed to timber battens: Colour-matched Proprietary UNI-Timber Screw system
- Concealed fixing: SFS TUF-S fixings

1.2.2 Fixing size: Select fixings suitable for the specific panel and framing thicknesses. Fixing size varies based on both panel and substrate thicknesses.

1.2.3 Fixing material:

- UNI Rivet, UNI-Metal Screw, and UNI-Timber Screw: *specify the desired fixing material*
  Stainless Steel 304 (standard),
  Stainless Steel 304 with additional protective coating for applications in C5 corrosion zone,
  Stainless Steel 316 for higher corrosion resistance, or
  Aluminium UNI Rivet for fixing to aluminium framing or applications in C5 corrosion zone with aluminium framing.
- SFS TUF-S concealed fixings: Stainless Steel 316

1.3 Framing requirements

1.3.1 Face-fixed to steel framing: Siniat top hat systems or equivalent, minimum base metal thickness of

1.1mm, steel grade of G250 and tensile strength of 320MPa, with dimensions per relevant EQUITONE technical literature

1.3.2 Face-fixed to aluminium framing: Minimum 6005A T5 aluminium with minimum profile thickness of 2mm

1.3.3 Face-fixed to timber batten: 70x35mm timber batten with minimum grade of MGP10 and treatment level of H3

1.3.4 Concealed-fixed: NVELOPE NV3/NV93 framing systems or approved equivalent

1.4 Weather barrier

1.4.1 Façade wind pressures up to ±2 kPa (SLS) and ±3 kPa (ULS): Proclima Solitex Extasana or approved equivalent

1.4.2 Façade wind pressures up to ±2.5 kPa (SLS) and ±4.5 kPa (ULS): Siniat Weather Defence or approved equivalent

1.5 Miscellaneous

1.5.1 Flashings, trims, backing strips, perforated profiles and baffles placed between panel and framing must be ≤ 0.8 mm thick.

1.5.2 Only use EQUITONE-approved foam tapes as part of the facade system.

2. Performance requirements

2.1 Fibre cement product

2.1.1 Manufacturing: Compliant with AS/NZS 2908.2 and must be 100% asbestos-free

2.1.2 Finish: UV- and moisture-resistant raw textured surface

2.1.3 Panel edge treatment: Cut edges do not require sealing

2.1.4 Maintenance: Does not require repainting or resealing as part of the standard maintenance regime

2.1.5 Colour tolerance (ΔL): Maximum ± 2.5 (brightness)

2.1.6 Light reflectance value (colour / %): LA20 / 20.1, LA60 / 26.59

2.1.7 Physical properties: 27 MPa mean bending strength, 1630 Kg/m3 mean density, type A category 5 (AS/NZS 2908.2),

2.1.8 Fire hazard properties: NCC C2D10(6d) and H3D2(1D), Group 1 material (AS 5637.1) and NCC C2D11

2.1.9 Compliance certification: CodeMark

2.1.10 Reference service life: 60 years

2.1.11 Environmental performance:

- Cradle to Cradle certified
- Environmental Product Declaration (EPD) certified
- Contributing up to 36 credit points to the BREEAM certification of the building in the categories; Energy, Health and Wellbeing and Materials. (Based on BREEAM International NC Version 6.0 scheme, depending on building function and scope)
- Contributing up to 30 credit points to the LEED 4.1 certification of the building in the categories; Energy and Atmosphere and Materials and Resources. (Based on LEED BD+C v4 scheme and are dependent on building function and scope.

2.2 External applications

2.2.1 Weatherproofing:

- The cladding system must be compliant with NCC F3P1 for class 2-9 buildings (or H2P2 for class 1 and 10 buildings).
- Provide appropriate compliance evidence such as CodeMark as part of the project performance solution.

- Ensure the façade system is installed strictly in accordance with the tested and certified construction details. All components, including but not limited to joint configurations, flashings, cappings, and trims, must comply with these details to maintain system integrity, weatherproofing, and drainage performance. Penetrations, openings, and interfaces with other building elements must be fully sealed as per the certified details. Any deviation from the certified details must be reviewed and approved by the certifying engineer or façade consultant before implementation.
- Where a pliable membrane (sarking) is used it must comply with AS 4200.1, be installed in accordance with AS 4200.2 and its manufacturer's guidelines, and be located on the exterior side of the primary insulation layer of wall assemblies that form the external envelope of a building.
- The weather barrier whether pliable or rigid must have a vapour permeance of not less than 0.143 μg/N.s in climate zones 4 and 5, and 1.14 μg/N.s in climate zones 6, 7 and 8.

2.2.2 Structural and serviceability:

- The cladding system must be compliant with the relevant provisions of the NCC including but not limited to B1P1 (1), (2)(a), (b) & (c) for class 2-9 buildings (or H1P1 (1), (2)(a), (b) & (c) for class 1 and 10 buildings).
- For wind zone C and D, the cladding system must comply with AS 4040.3 and AS/NZS 1170.2 Appendix D – the debris impact requirements.
- Provide appropriate compliance evidence such as CodeMark as part of the project performance solution.
- Ensure façade panels are installed in accordance with EQUITONE installation requirements and technical literature.
- The façade design and installation must accommodate all anticipated building and material movements including, but not limited to, thermal expansion and contraction, structural deflection, settlement, wind-induced sway, and differential movement between dissimilar materials or building elements such as floor levels. This is to be achieved through the strategic placement and detailing of appropriately sized control joints and movement joints throughout the façade system. These joints must be designed in accordance with the cladding manufacturer's technical guidance, relevant Australian Standards, and the project-specific engineering requirements to prevent undue stress, buckling, cracking, or system failure over time.
- The supporting structure for the cladding system must be suitable for use with fibre cement materials and designed to maintain long-term structural integrity under all expected service conditions. The structural substrate and any secondary framing supporting the cladding must limit deflection to the lesser of Span/250 or 4 mm under design loads, in accordance with the requirements for fibre cement products.

2.2.3 Fire performance:

- In a building of type A or B construction, external walls and common walls including all components incorporated in them including the façade covering/cladding materials, framing and insulation must be non-combustible or compliant with NCC C2D10 and H3D2.
- Where fire cavity barrier is required in the external wall cavity for vertical fire and smoke separation, use a suitable open state fire cavity barrier in consultation with the cladding manufacturer and project fire engineer.
- Weather barrier must comply with C2D10(6).
- In bushfire prone areas the construction must be in accordance with AS 3959 – Construction of buildings in bushfire-prone areas – and the relevant provisions of the NCC. In such areas, all cavity air inlets and outlets shall be fitted with a corrosion-resistant metal or aluminium angle or mesh adequately perforated with aperture size of 2 mm. All gaps and holes larger than 3mm shall also be covered or backed with a corrosion-resistant metal or aluminium sleeve or backing strip. Follow manufacturer's guidelines for bushfire prone applications.

2.2.4 Façade system: Fully ventilated façade system

2.3 Internal applications

2.3.1 Fire performance: The fire hazard properties of internal and ceiling linings must comply with NCC C2D11. The group numbering of the materials used for internal wall and ceiling linings must be determined as per AS 5637.1.

2.3.2 Total volatile organic compounds (TVOC): Internal wall and ceiling linings must have a TVOC of less than 0.5 mg/m3 with individual VOC of less than regulated limits and Formaldehyde of less than 0.009 mg/m3.

2.3.3 Structural: Internal wall and ceiling linings must comply with the relevant provisions of the NCC including but not limited to B1P1 (1), (2)(a), (b) & (c) for class 2-9 buildings (or H1P1 (1), (2)(a), (b) & (c) for class 1 and 10 buildings).

2.4 Miscellaneous

2.4.1 All facade metal components, including but not limited to flashings, fixings, and framing, should be of adequate corrosion resistance appropriate to the project location and requirements.

2.4.2 Ensure all metal types used (fixings, framing, flashings, etc.) are compatible to prevent bimetallic corrosion.

2.4.3 Where graffiti resistance and stain protection are required, apply an anti-graffiti coating recommended by EQUITONE, in accordance with the manufacturer's instructions and recommendations.

2.4.4 For high-traffic internal applications, apply a sealer recommended by EQUITONE to enhance stain resistance, in accordance with the manufacturer's guidelines.

3. Execution

3.1 Examination

3.1.1 Before installation, ensure the building envelop is fully weatherproof, and all junctions with openings and penetrations have been fully sealed as per the EQUITONE Typical Construction Details, relevant standards and regulations, and project performance solution requirements.

3.2 Panel storage and handling

3.2.1 Panels are pre-finished and therefore due care must be adopted during storage, handling, fabrication and installation to prevent any damages to the panels.

3.2.2 Panels must be stored flat on pallets, inside and undercover in dry conditions, protected from weather and other trades. Stack the pallets in a way so that the panels are ventilated. Panels must be stored and handled in accordance with EQUITONE Design and Installation Guide and manufacturer's requirements and recommendations.

3.3 Panel preparation

3.3.1 Fabricate the panels in accordance with the relevant EQUITONE Design and Installation Guide and manufacturer's requirements and recommendations.

3.3.2 Clean panel surfaces thoroughly prior to installation. Remove any cutting or drilling dust from the surface of the panel as per EQUITONE Design and Installation Guide.

3.3.3 Site cut edges need to be sanded with 80 grit sandpaper, no sealing of cut edges is required.

3.4 Panel installation

3.4.1 Install EQUITONE panels in accordance with EQUITONE technical literature including but not limited to Design and Installation Guide, Typical Construction Details, and other relevant technical literature and manufacturer's recommendations. Provide adequate ventilation behind the panels by incorporating sufficient air inlets and outlets in accordance with the manufacturer's guidelines.

3.4.2 Ensure all ventilation openings are vermin-proofed using appropriate perforated profiles, as

recommended by the manufacturer.

3.4.3 All panel joints must be expressed and detailed in accordance with EQUITONE's technical documentation.

3.4.4 Ensure temporary capping is provided for installed panels to prevent excessive moisture ingress behind the façade panels until permanent cappings are in place.

3.4.5 Provide secondary framing behind façade panels to support external fixtures or attachments that exceed the manufacturer's recommended load limits. Ensure such fixtures do not restrict the intended movement of the panels.

3.5 Panel protection

3.5.1 Protect installed products until completion of project in accordance with manufacturer's guidelines. Use Corflute sheets or similar to protect panels during construction; temporarily secure these to the support frame at vertical panel joints. Do not use tape directly on panel surfaces.

4. General

4.1 Submission

4.1.1 Construct a mock-up of a representative facade section for stakeholder review and approval before the main installation begins.

4.1.2 Detailed shop drawings

4.1.3 Relevant engineering reports and performance solutions

4.2 Quality assurance

4.2.1 Check the quality of EQUITONE panels and components for any visual defects or damage prior to installation. Contact your local EQUITONE organisation for any issues. Do not install any panels or components which are either damaged or not aligned with the project requirements and specifications.

4.2.2 Use manufacturer's installation checklists for quality check as part of the Inspection and Test Plan of the façade.

4.2.3 After installation, clean panels per EQUITONE Cleaning and Maintenance Guide. Ensure panels are dust- and stain-free. As the material is uncoated, minor scratches or stains may be sanded off. Replace damaged panels per manufacturer guidelines.

5. Warranty

5.1.1 Product Warranty: Minimum 15 years product warranty directly from the manufacturer

5.1.2 Workmanship Warranty: Matching workmanship warranty confirming the product has been installed in accordance with the manufacturer's technical literature, relevant standards and regulations, project specifications, and relevant project performance solution requirements.

Please visit www.equitone.com for contact details, further information and technical documents.

www.equitone.com