MASTERWALL

M-SERIES

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BAL 29, lightweight, reinforced, external insulating wall system incorporating pre-coated panel.

TECHNICAL DOCUMENT:

ARCHITECTURAL SPECIFICATIONS

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ARCHITECTURAL SPECIFICATIONS

Specification Clause

Option 1: Masterwall - CodeMark Certified Insulated cladding system by Masterwall Australia, incorporating **M-Series** panel. Nominated panel thickness of __mm, installed over (frame/masonry) as per the **M-Series** System Installation & Construction Detail Manual.

Option 2: M-Series BAL Low to BAL 29 System - CodeMark Certified Insulated cladding system by Masterwall Australia, achieving Bushfire Attack Level 29, incorporating **M-Series** panel. Nominated panel thickness of __mm, installed over (frame/masonry) as per the **M-Series** System Installation & Construction Detail Manual.

Long Form

M-Series panel.

This specification is to be read in conjunction with the **M-Series** System Installation & Construction Detail Manual.

01 General

01.01 Extent

The work required in this trade includes:

- Cutting of wall panels as necessary
- Installation of wall panels
- Jointing and sealing of all joints
- Provision of control joints as necessary
- Flashing door & window openings
- Sealing of all penetration and abutments
- Provision & application of polymer render

The above works are to be undertaken strictly in accordance with the Masterwall Australia instructions and as specified herein.

01.02 Sub-Structures

The Builder is to ensure that the substrates and subframes to which the **M-Series** panels are to be fixed are straight and true and fit for purpose. Timber framing must comply with AS1684 – National Timber Framing Code. Metal framing must comply with AS 3623 – Domestic metal framing. Masonry walls must comply with AS 3700 - Masonry Structures. Precast / Tilt-Up walls must comply with AS 3600/AS 3850 - Precast and Tilt-Up Panel Construction. Structural bracing is to be integral with wall frame systems. The Builder is to ensure that prior to the commencement of works contained in this specification, any sub-contactors performing these works accept without reservation the whole sub-structure upon which **M-Series** panels will be fixed, and the edges up to which they finish. No subsequent claim as to the suitability or otherwise of the sub-structure, edges, finishes to abuting constructed elements will be considered.

01.03 Structural Strength

Requirement:
Panels and component parts including framing, fixings, trims, edges and joint sealing shall be constructed & fixed so as to be of sufficient strength to withstand the required design loads including:

- wind (positive and negative)
- hailstone
- regular maintenance without any damage, dislodgement or movement.

01.04 Weatherproofing

Requirement:
Rendered **M-Series** panels shall be installed and finished to provide a weather-tight outer face to external walls and surfaces of the building. The design detail, installation and finish of the **M-Series** System is to effectively prevent water penetration under any weather conditions.

The **M-Series** panel is moisture resistant and therefore has limited porosity and there is no drained cavity. All door frames, window frames and other items set into the wall must include integral drainage provisions. Drained sub-sills are an alternative.

All exposed edges to parapets and similar locations must be weatherproofed by fitting with a folded metal capping, preferably zincalume, Colorbond or the capless renderable Skyline System.

Junctions with lower roofs, balconies, terraces and decks must be fitted with folded metal underflashing, preferably zincalume

to metal roofs, lead to tiled roofs and stainless steel to terraces. The bottom edge of the **M-Series** panel may be undercut to produce a close, straight joint.

A minimum air gap of 15mm is required between the finished bottom edge and the finished surface of a terrace or balcony.

An air gap of 10mm minimum is recommended between the finished bottom edge of the panels and the roof flashing.

The finished bottom edge of the **M-Series** panels should not be set less than 50mm from completed ground works, be it soil or paving/concrete etc.

Any exposed plinth is to be finished separately to the **M-Series** panel.

01.05 Samples

Requirement:
Prior to ordering any materials, submit two samples of all materials, finishes and fixings, together with supporting product data.

01.06 Delivery, Storage, Handling, Protection

Requirement:
M-Series panels delivered to site should be stored flat and evenly supported. They should be covered or otherwise protected from damage or soiling.

During installation, the **M-Series** panels should be handled with care to prevent edge damage or fracture.

Particular care is required during windy conditions, as unsecured panels can be severely damaged.

Continuous exposure may result in deterioration and minor fretting of exposed edges of the panel. This is to be removed prior to proceeding with finishing or sealing. As with all sheet materials, protection from impact damage is required.

The application of the approved polymer render should, wherever possible, follow the installation of internal services, fittings and linings – when the risk of damage is minimised.

Timely application of the polymer render system will complete the wall system - and protect the panels from damage.

Panels that are fractured or severely damaged (before or after fixing) should be rejected or cut down to size for use.

Minor penetrations, edge fractures or crushed areas may be site-patched with the reinforcing mesh and an approved acrylic patching render.

01.07 Waste Management

Requirement:
Prevent dispersal of waste material, including dust and off-cuts. Prepare for removal and legal disposal.

02 Materials

02.01 Materials Generally

All materials shall be new, approved, of the type indicated on the drawings, as specified herein, the best obtainable quality, free from all defects, and shall conform to current Australian Standards where applicable.

Caulking and sealing compounds shall be of the type advised by the maker for the particular conditions, and be applied in accordance with their recommendations.

02.02 Panels

Proprietary Item:
M-Series panel.

Description:
M-Series panels are comprised of a super high performance CFC/HCFC - free, rigid thermoset phenolic foam core. The facing of the panel is reinforced with a fibreglass tissue and is compatible with an approved polymer render and decorative finishes.

Thickness:
50mm, 75mm, 100mm & 125mm - If other thicknesses are required, please consult Masterwall Australia.

Edge:
Square cut.

02.03 Fixings

Screw:
Class (3) screws and **Masterwall** 40mm plastic buttons. Screw length and type selected to suit panel thickness and framing, with 25mm minimum penetration to timber framing, 10mm minimum to steel framing and minimum 40mm into masonry or concrete substrates.

02.04 Sealant

Description:
Premium quality modified liquid sealant (to flashing tape) and flexible foam sealant (panel joints).

02.05 Reinforcing Mesh

Description:
Alkaline-resistant 5mm x 5mm fibreglass mesh, 145 gsm, minimum 1.0m or 1.2m wide.

02.06 Trims

Description:
Masterwall approved Alloy Trims.

02.07 Builders Paper

Description:
Masterwall Breather Frame Wrap.

02.08 Flashing Tape

Description:
Masterwall Flashing Tape - Adhesive, Aluminium.

03 Installation & Workmanship

03.01 Tolerances

Requirement:
Supply and install the **M-Series** panels, and render within the following tolerances.

Plane Surfaces:
3mm maximum variations in 3m (in any direction) when tested with a 3m straight edge.

Horizontal & Vertical Joints & Edges:
3mm maximum deviation from true line.

Adjoining Surfaces:
2mm maximum variation to adjacent plane surfaces.

Joint widths including abutments to other elements:
2mm maximum variation.

03.02 Framing & Supports

Requirement:
Provide solid support to all vertical joints of panels, as per **M-Series** System.

Adjust stud set-out. Insert additional studs, noggings and blocking.

Install solid supports and blocking for the installation of all wall-mounted fixtures.

03.03 Builders Paper

Requirement:
Masterwall Builders Frame Paper (Breathable/Transluscent) to be applied to all areas of frame.

03.04 Flashing Tape

Requirement:
75mm **Masterwall** Adhesive Flashing Tape to be applied to all openings in an overflashed fashion.

03.05 Panel Setout

Requirement:
Set out the **M-Series** panels either vertically or horizontally to achieve an efficient and economic solution.
A horizontal set-out is preferred.

Stagger end joints with a brickwork layout to horizontal panels.
Cut panels accurately to size, and to suit openings and penetrations. Form butt joints to external corners, butt joints elsewhere.

03.06 Sealing

Requirement:
Seal all joints with a foam sealant, to be applied either before or after closing up the joint. Apply premium quality modified liquid sealant to face of flashing tape where contacted by **M-Series** panel.

03.07 Fixings

Requirement:
Install screw and/or adhesive fixings to suit. Refer to page 9 of the **M-Series** System Installation & Construction Detail Manual.

Countersink screw and button fixings into panel face without crushing or fracturing the edge of the **M-Series** panel.

03.08 Control Joints

Requirement:
Form open, un-bonded control joints to coincide with structural control joints in the substrate, all walls longer than 20m and at all mid-floor breaks. Render articulation joints should be placed at all panel area below windows that are less than 300mm and at all perceived stress points of the building structure.

03.09 Trims

Requirement:
Install **Masterwall** approved Alloy Trims to all external corners and exposed edges, including around openings. Trims to be set straight, plumb and flush with the final render coat.

03.10 Fibreglass Mesh

Requirement:
Embed entire surface of **M-Series** panel wall with alkaline resistant fibreglass reinforcing mesh (min 145gsm) into first coat of polymer render. Reinforce corners of all openings with diagonal strips (150mm x 200mm) of same mesh. For precoated meshed cyclonic panels, fibreglass mesh to be applied over the panel joins only - see **M-Series** System Installation & Construction Detail Manual page 18.

03.11 Flashing

Requirement:
Co-ordinate the **M-Series** panel installation with the installation of flashings to roofs, balconies, terraces and wall penetrations, window & door openings.

03.12 Weatherproofing

Requirement:
Install foam sealant to all perimeters and abutments of the panels including return edges. Finish the panels 10mm minimum above roof flashings, 15mm minimum above terraces and balconies and 50mm above finished paving or soil levels.

03.13 Termite Treatment

Requirement:
Co-ordinate the **M-Series** System installation with the installation of the selected termite treatment. The **M-Series** panels do not form part of a termite protection system.

03.14 Polymer Render System

Requirement:
Apply a 5mm minimum of an approved polymer render system to the whole face and edges of the installed **M-Series** panels. Apply the render by conventional techniques and achieve the specified tolerances. Embed the reinforcing mesh in the first skim coat. Finish all edges straight and square. Finish the skim coat (or coats) to a texture suitable to receive the selected finishing coat, architectural mouldings, decorative effects and colour.

Where applicable, apply a liquid membrane for final sealing (clear or selected colour).

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Short Form

M-Series panel
Insulation render panel.

Extent

Install **M-Series** panels.

01 Panels

M-Series insulation render panel.

02 Thickness

50mm, 75mm, 100mm & 125mm as noted.

03 Fixings

Screw-fixed to framing, or mechanically-fixed to masonry and concrete using the approved method.
Type and spacing as recommended by the manufacturer.

04 Installation

Comply with the manufacturer's recommendation for:
- setout
- joints
- openings
- joint sealing
- joint reinforcing
- waterproofing
- trims

05 Finishing

Apply minimum 5mm of approved acrylic render system and prepare for final coat and decorative effects.

Apply two (2) coats of base render and prepare for tinted texture coat. Refer to manufacturers specifications for render applications.

DISCLAIMER

Whilst every effort has been made to ensure the information in this manual is correct at the time of printing, Masterwall Australia Pty Ltd reserves the right to change the specifications of all products referred to in this manual.

Masterwall M-Series complies with the BCA 2019 provisions and State or Territory variation(s).

Refer to **masterwall.com.au/downloads** to view the complete Certificate of Conformity.

TECHNICAL ADVICE / DESIGN

Masterwall Australia supports all of its products and systems with a comprehensive Technical Advisory Service for specifiers, stockists and contractors.

This includes a software-powered service designed to give fast, accurate technical advice. Simply phone the Masterwall Australia Technical Service Department with your project specifications. Calculations can be carried out to provide a Condensation (Dew Point) Risk Analysis, and/or a Total Wall (RT) System Thermal Value so that the correct insulation thicknesses can be determined for any given project.

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MASTERWALL

Masterwall manufactures and distributes high performance exterior insulation, render and coating systems.

M-TEX
M-SERIES
X-SERIES
K-SERIES
SKYLINE
UMBRA
MATRIXX
H2O DRAINAGE WRAP
MASTERFLOOR