

4241MR MDS PROFILED METAL CLADDING

1 GENERAL

This section relates to the supply and fixing of **Metal Design Solutions** Euro Wall profiled metal wall cladding complete with associated accessories and components.

It includes:

- Zinc Euro Wall profiles
- Copper Euro Wall profiles
- Aluminium & pre-coated aluminium Euro Wall profiles
- Galvanised steel & pre-coated steel Euro Wall profiles

1.1 RELATED WORK

Refer to 3821 TIMBER FRAMING for exterior cavity battens & cavity closer

Refer to 4161 UNDERLAYS, FOILS AND DPC for underlay

1.2 ABBREVIATIONS AND DEFINITIONS

Refer to the general section 1232 INTERPRETATION & DEFINITIONS for abbreviations and definitions used throughout the specification.

The following abbreviations apply specifically to this section:

BMT	Base metal thickness
LBP	Licensed Building Practitioner
NZMRM	New Zealand Metal Roofing Manufacturers Inc

Documents

1.3 DOCUMENTS

Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

NZBC B2/AS1	Durability
NZBC E2/AS1	External Moisture
NZBC G12/AS1	Water Supplies
AS/NZS 1170.2	Structural design actions - Wind actions
AS 1397	Continuous hot-dip metallic coated steel sheet and strip - Coatings of zinc and zinc alloyed with aluminium and magnesium
AS 1566	Copper & copper alloys, rolled flat products
AS/NZS 1604.3	Specification for preservative treatment Part 3: Plywood
AS/NZS 1734	Aluminium & aluminium alloys - flat sheets, coiled sheet and plate
AS/NZS 2269.0	Plywood - structural
NZS 2295	Pliable permeable building underlays
AS/NZS 2728	Prefinished / prepainted sheet metal products for interior / exterior building applications
NZS 3604	Timber-framed buildings
ISO 9223	Corrosion of metals and alloys - Corrosivity of atmosphere - Classification determination and estimation
BS EN 988	Zinc & zinc alloys, specification for rolled flat products for building
NZMRM CoP	NZ Metal Roof and Wall Cladding Code of Practice

1.4 MANUFACTURER/SUPPLIER DOCUMENTS

Manufacturer's and supplier's documents relating to this part of the work:

Metal Design Solutions details

[BRANZ Appraisal 524](#) - Cavibat cavity battens

Manufacturer/supplier contact details

Company: Metal Design Solutions Limited

Web: www.mds.net.nz

Email: info@mds.net.nz

Telephone: 09 640 0009

Warranties

1.5 WARRANTY - MANUFACTURER/SUPPLIER

Provide a material manufacturer/supplier warranty:

- ~ years for failure of coating adhesion
- ~ years for weatherproofing by material penetration

- Provide this warranty on the manufacturer/supplier standard form (if not available then use the standard form in the general section 1237WA WARRANTY AGREEMENT)
- Commence the warranty from the date of practical completion of the contract works.

Refer to the general section 1237 WARRANTIES for additional requirements.

1.6 WARRANTY - INSTALLER/APPLICATOR

Provide an installer/applicator warranty:

- 5 years for workmanship

- Provide this warranty on the installer/applicator standard form (if not available then use the standard form in the general section 1237WA WARRANTY AGREEMENT)
- Commence the warranty from the date of practical completion of the contract works.

Refer to the general section 1237 WARRANTIES for additional requirements.

Requirements

1.7 QUALIFICATIONS WORKERS - MANUFACTURER / SUPPLIER REQUIREMENTS

Workers to be trained by and work under the direct supervision of a Licensed Foreman, approved by Metal Design Solutions Limited. Refer to 1270 CONSTRUCTION for additional requirements relating to qualifications.

1.8 NO SUBSTITUTIONS

Substitutions are not permitted to any of the Metal Design Solutions systems, or associated components and products listed in this section.

Compliance information

1.9 INFORMATION REQUIRED FOR CODE COMPLIANCE

Provide the following compliance documentation:

- Manufacturer's, importer's or distributors warranty
- Installer's warranty
- Producer Statement PS3- Construction from the installer
- Other information required by the BCA in the Building Consent Approval documents.

Performance - Wind (design by contractor)

1.10 DESIGN PARAMETERS WIND - DESIGN BY CONTRACTOR

Design the installation to the manufacturer's requirements and as appropriate for the project wind design stated in the general section 1220 PROJECT.

1.11 FIXINGS, WIND

Design and use the fixings / fixing pattern appropriate for the design loads of this site; refer to general section 1220 PROJECT for details of wind zone, [NZMRM CoP](#) and to **Metal Design Solutions Ltd** requirements for the selected profile.

Allow for specific loadings at corners and the periphery of the roof, where localised pressure factors apply. Fixing pattern to also take into account fixing method and girt/frame spacing.

Performance - General

1.12 SPREAD OF FIRE

To [NZBC C/AS1](#), 5.4 **Exterior surface finishes**, [NZBC C/AS2](#), 5.8 **External cladding systems** or [NZBC C/VM2](#).

1.13 PERFORMANCE

Install wall cladding materials in accordance with the [NZMRM CoP](#), and **Metal Design Solutions Ltd** requirements for the selected profile, to form a weather-tight performance for the completed cladding system, including all penetrations through the walls and junctions with roofs and parapets

1.14 CO-ORDINATE

Co-ordinate to ensure substrate and preparatory work is complete and other work programmed in the order required for access and completion of the walls. Ensure that all necessary members are positioned so that flashings can be fastened at both edges through the cladding to the primary structure.

2 PRODUCTS

Materials

- 2.1 GALVANIZED STEEL, UNPAINTED
Formability steel sheet, G300 flashings and roll forming of profiles, coated to AS 1397.
- 2.2 HOT-DIPPED ALUMINIUM/ZINC COATED STEEL, UNPAINTED
Formability steel sheet, G300 flashings and roll forming of profiles, coated to AS 1397.
- 2.3 PRE-FINISHED HOT-DIPPED ALUMINIUM/ZINC COATED STEEL
Formability steel sheet, G300 flashings and roll forming of profiles, coated to AS 1397.
- 2.4 PRE-FINISHED HOT-DIPPED ALUMINIUM/ZINC/MAGNESIUM COATED STEEL
Formability steel sheet, G300 flashings and roll forming of profiles, coated to AS 1397.
- 2.5 ALUMINIUM
Aluminium to [AS/NZS 1734](#). Aluminium alloy series 5005 or 5052 marine grade. H34 or H36 temper to suit application.
- 2.6 PRE-FINISHED ALUMINIUM
Aluminium to [AS/NZS 1734](#). Aluminium alloy series 5005 or 5052 marine grade. H34 or H36 temper to suit application, coated to [AS/NZS 2728](#).
- 2.7 COPPER
Copper to AS 1566, half-hardened commercial finished with a minimum 0.55mm BMT.
- 2.8 ZINC / TITANIUM ZINC
Coil to BS EN 988 with a minimum 0.70mm BMT with back face coating.

Fixings

- 2.9 FASTENERS GENERALLY
Fixings and fasteners are to be compatible with all materials, the environment and meeting the requirements of the NZ Building Code. Installation is to be in accordance with [NZBC E2/AS1](#) and/or the [NZMRM CoP](#) and Metal Design Solutions requirements.
- 2.10 FIXING CLIPS - STAINLESS STEEL
Stainless Steel fixing clips to [NZBC E2/AS1](#), clause 8.4.9, to suit the material, profile and location as required by Metal Design Solutions Technical Information. Fix to plywood underlay or to cavity battens with minimum two selected screws.

Fix clips at no more than 500mm spacing to plywood or to cavity battens with selected fasteners. For high and very high wind load areas clip spacing may require to be reduced, refer to SELECTIONS for details.
- 2.11 FIXING CLIPS - COPPER
Copper fixing clips to [NZBC E2/AS1](#), clause 8.4.9, to suit the material, profile and location as required by Metal Design Solutions Technical Information. Fix to plywood underlay with minimum two selected steel screws.

Fix clips at no more than 500mm spacing to plywood with selected fasteners. For high and very high wind load areas clip spacing may require to be reduced, refer to SELECTIONS for details.
- 2.12 FIXING CLIPS / JOINTS - FLAT PANEL SYSTEM
Proprietary extruded aluminium clip fixing. Fix to cavity battens with minimum two selected screws.

Fix clips at no more than 500mm spacing to cavity battens with selected fasteners. For high and very high wind load areas clip spacing may require to be reduced, refer to SELECTIONS for details.
- 2.13 FIXING SCREWS
To AS 3566. Screws appropriate to the wall cladding material and the supporting structure, as required by Metal Design Solutions and with a Class 4 or 5 durability and not less than the material being fixed. Screws into timber to penetrate by minimum 30mm. Refer to SELECTIONS.
- 2.14 RIVETS - ALUMINIUM
Generally use sealed aluminium rivets, minimum diameter 4mm.
- 2.15 RIVETS - COPPER
For copper roofing use solid copper rivets with minimum diameter 4mm.
- 2.16 RIVETS - STAINLESS STEEL
For titanium zinc roofing use solid 304 stainless steel rivets with minimum diameter 4mm.

Components

2.17 FLASHINGS GENERALLY

To [NZBC E2/AS1, 4.0, Flashings](#). Formable grade 0.55mm BMT for galvanized, aluminium/zinc, aluminium/zinc/magnesium - coated and pre-painted steel, 0.90mm BMT for aluminium (or 0.7mm for small aluminium flashings) 0.5mm BMT for Copper & 0.7mm BMT for Titanium Zinc to the same standards as the profiled sheets, notched where across profile or provided with a soft edge. Ensure flashing material matches the cladding material.

2.18 WALL AND PARAPET FLASHINGS

To [NZBC E2/AS1, 4.0 Flashings](#). Supplied by Metal Design Solutions Ltd to match or to suit the cladding.

2.19 PLYWOOD SUBSTRATE

Plywood to be thickness 15mm minimum and complying with [AS/NZS 2269.0](#), minimum CD Grade, H3.2 with waterbourne CCA treatment to [AS/NZS 1604.3](#) and kiln dried after treatment and be equilibrium moisture content (EMC) of 18% or less, when the cladding is installed. Install with C quality face, filled and sanded on upper face.

2.20 EXTERIOR CAVITY WALL BATTENS

Radiata pine battens, minimum 20mm thickness, width and height to match timber framing studs. To [NZS 3602](#), table 1, reference 1D.10, Requirements for wood-based building components to achieve a 50-year durability performance.

2.21 CAVIBAT EXTERIOR CAVITY BATTENS

Cavibat 45x18mm extruded fluted polypropylene cavity batten system. Refer to [BRANZ Appraisal 524](#).

2.22 CASTELLATED EXTERIOR CAVITY BATTENS

Radiata Pine H3.2 castellated and bevelled 45x20mm cavity batten.

2.23 EXTERIOR CAVITY CLOSER/VERMIN-PROOFING

Proprietary aluminium or PVC cavity closer to [NZBC E2/AS1](#). Width to suit cavity.

Accessories

2.24 UNDERLAY

Refer to 4161 UNDERLAYS, FOIL AND DPC

2.25 SEALANT

Neutral curing MS sealant or polymer sealant as required by Metal design Solutions and used as directed.

2.26 LAP SEALING TAPE

Closed cell self adhesive nitrile tape.

2.27 SEPARATION STRIP TIMBER CAVITY BATTENS

PVC tape or similar as a separator between the timber battens and metal cladding. Ensure separator is slightly wider than the batten.

3 EXECUTION

Conditions

3.1 DELIVERY, STORAGE & HANDLING OF PRODUCTS

Refer to 1270 CONSTRUCTION for requirements relating to delivery, storage and handling of products.

Store on a level firm base clear of the ground, with packs well ventilated and completely protected from weather and damage. Do not allow moisture to build up between sheets. If sheet packs become wet, fillet or cross stack to allow air circulation and drying between sheets.

Lift each sheet carefully, do not drag or distort and avoid contact with damaging substances, including cement. Protect edges and surface finishes from damage, keep under cover and remove as the product is being installed.

3.2 ROUTINE MATTERS

Refer to 1250 TEMPORARY WORKS & SERVICES for protection requirements.

Refer to 1270 CONSTRUCTION for requirements relating to defective or damaged work, removal of protection and cleaning.

3.3 INSPECTION - STRUCTURE

Inspect the wall framing and supporting structure to ensure that it is complete and fully braced ready for cladding. For vertically installed cladding fixed directly to cavity battens, ensure noggings are located to suit horizontal cavity battens at minimum 800mm centres.

3.4 FRAMING TIMBER MOISTURE

When continuous metal cladding etc runs along a long continuous timber member and is directly fixed to it, the timbers equilibrium moisture content (EMC) to be 18% or less. For flashings in this situation (sometimes called transverse flashings) the framing EMC to be maximum 16%, and preferably as low as 12%. Transverse flashings can be temporarily tacked in place and final fixing done when moisture content is acceptable.

Application - Preparation

3.5 SEPARATION

Isolate dissimilar materials (metals and non-metals) in close proximity as necessary by painting the surfaces or fitting separator strips of compatible materials. Place isolators between metals and treated timber and cement based materials. Do not use lead sheet or copper in contact with or allow water run-off onto galvanized or aluminium/zinc & aluminium/zinc/magnesium coated steel.

3.6 FIX UNDERLAYS

Refer to 4161 UNDERLAYS, FOIL AND DPC

To [NZBC E2/AS1. 9.1.7](#). Fix to framing, with laps and fixing to underlay manufacturer's requirements. Make good any damage before or during fixing of cladding before fixing continues.

3.7 INSTALL DRAINED CAVITY - VERTICAL BATTENS

Install 20mm minimum thickness drained cavity to [NZBC E2/AS1: 9.0 Wall claddings](#), where required. Fix vertical cavity battens to wall framing studs. The battens are fixed by the cladding fixings which will penetrate the wall framing studs over the wall underlay. Seal the top of the cavity and install cavity closer/vermin-proofing at base of wall, open horizontal (or raking) junctions and over openings (windows, meters etc).

3.8 INSTALL DRAINED CAVITY - CAVIBAT BATTEN

Install Cavibat 18mm or Cavibat R 20mm drained cavity to manufacturer's requirements and to Metal Design Solutions requirements for selected metal cladding profile. Cavibat horizontal battens to be installed at min 800mm centres on the nog line, they are fixed by the cladding fixings which will penetrate to the wall framing through the wall underlay and/or rigid wall underlay. The top of the cavity must be sealed and cavity closer/vermin-proofing installed at base of walls, open horizontal (or raking) junctions, over openings (windows, meters etc).

3.9 INSTALL DRAINED CAVITY - CASTELLATED TIMBER BATTEN

Install 20mm minimum thickness drained cavity to [NZBC E2/AS1: 9.0 Wall claddings](#). The castellated battens are fixed horizontally at minimum 800mm centres on the nog line with the bevelled edge at the top sloping down to the outside. They are fixed by the cladding fixings which will penetrate to the wall framing through the wall underlay and/or rigid wall underlay. The top of the cavity must be sealed and cavity closer/vermin-proofing at base of walls, open horizontal (or raking) junctions, over openings (windows, meters etc). If necessary use cavity spacers where fixing is required between cavity battens.

3.10 INSTALL SEPARATION STRIP - METAL CLADDING ON TREATED CCA TIMBER

Fix PVC tape or similar to separate metal sheeting from CCA treated timber batten or framing, prior to fixing metal cladding.

3.11 INSTALL PLYWOOD SUBSTRATE

Lay selected plywood with the face grain at right angles to the supports, filled and sanded face up, staggered joints (brick bond) with all edges of the sheets fully supported and to be continuous over at least two spans. Ensure sheets are correctly aligned, square, and in the same plane.

Allow a 3mm gap between square edged sheets, and fix at 150mm centres on all edges, 200mm centres elsewhere with stainless steel countersunk No.10 x 50mm screws into timber substrate in accordance with plywood manufacturer's and Metal Design Solutions' requirements.

3.12 FIX UNDERLAY OVER PLYWOOD SUBSTRATE

Refer to 4161 UNDERLAYS, FOIL AND DPC

Lay and lap roofing underlay to [NZBC E2/AS1.8.1.5 Roof Underlays](#) and to manufacturer's requirements. Make good any damage before or during fixing of cladding before fixing continues.

Application - General

3.13 STANDARDS AND TOLERANCES

Refer to the general section 1270 CONSTRUCTION for general requirements.

3.14 SET-OUT FOR VERTICAL CLADDING

Set cladding to vertical plumb lines and maintain verticality. Set all exposed fixings with horizontal string lines. Carefully set out sheets with side laps away from the main line of sight, and with the widths of end sheets the same. Check during fixing to eliminate creep or spread and to keep fastenings in line.

3.15 SET-OUT FOR HORIZONTAL CLADDING

Set cladding starting from the bottom to horizontal level lines and maintained through the laying process. Set all exposed fixings with vertical string lines. Maintain equal gaps between flashing ends to allow for expansion movement. Check during fixing to eliminate creep or spread and to keep fastenings in line.

3.16 AVOID END LAPS

End laps should be avoided, except where specifically detailed or instructed by Metal Design Solutions Ltd and specifically detailed.

3.17 MOVEMENT JOINTS

Wall fixing and jointing to conform with Metal Design Solutions Ltd requirements and [NZMRM CoP](#) recommendations for thermal movement.

3.18 MARKING AND CUTTING

Use ink pen, chalk line or coloured pencil for marking roof sheets prior to cutting. Do not use lead pencil for marking aluminium/zinc or aluminium/zinc /magnesium coating products. Cut only by metal cutting shears and seal all sheared edges of pre-coated steel sheet with edge protection lacquer. Remove all cutting and drilling debris from the roof.

3.19 FIXING GENERALLY

Install and fix in accordance with [NZBC E2/AS1](#), the [NZMRM CoP](#), and Metal Design Solutions Ltd requirements. Use only screws and/or clips as required by Metal Design Solutions Ltd. Paint colour matched fixings and accessories before installation. For screw fixed claddings, ensure screws are not over tightened especially when using cavibat battens directly behind cladding.

3.20 FIX SHEETS

Fix sheets in place using the fastening system required by Metal Design Solutions Ltd, making due allowance for dynamic local wind pressures on the building and thermal movement in the sheet.

3.21 SEAMS

Mechanically form and welt seal in situ to selected profile requirements. Dress seams in accordance to Metal Design Solutions Limited details.

3.22 PENETRATIONS

Confirm that exterior wall openings have been prepared ready for the installation of all window and door frames and other penetrations through the cladding. Required preparatory work includes the following:

- wall underlay to openings finished and dressed off ready for the installation of window and door frames and other penetrations
- claddings neatly finished off to all sides of openings
- installation of flashings (those required to be installed prior to installation of penetrating elements).

Application - Flashings

3.23 INSTALL FLASHINGS

Flash to penetrations, corner junctions, parapets and edges in accordance with [NZBC E2/AS1](#) requirements, Metal Design Solutions Limited requirements and as detailed. Where no detail is provided flash to [NZMRM CoP](#) recommendations. Flashings to be installed on timber framing with a moisture content of less than 18%.

Pre-form flashing shapes wherever possible. Cut neatly and precisely, notch, scribe, flute or dress down as required and fix using continuous clip / cleats, under-flashings, rivets and sealant to detail to form a weatherproof cover. For visible flashings, plan joints/junction to take account of the aesthetic requirements.

3.24 FLASHING PENETRATIONS

Flash all penetrations through the cladding in accordance with [NZBC E2/AS1](#); Metal Design Solutions Limited requirements and as detailed to provide a weathertight seal. Fit pipe flashings with a proprietary collar flashing. Ensure that flashings are set to avoid any ponding of water.

3.25 USE OF SEALANTS

Select and use neutral curing MS sealant or polymer sealant only as recommended by Metal Design Solutions Ltd. Apply sealant in two narrow beads transversely across flashing intersections, close to the two edges. Avoid exposing sealant on outside surfaces.

Do not use sealant on Copper and Titanium Zinc material, these materials are required to be soldered to complete any joint.

Completion & Commissioning

3.26 COMPLETION MATTERS

Refer to 1270 CONSTRUCTION for completion requirements and if required commissioning requirements.

4 SELECTIONS

For further details on selections go to www.metaldesignsolutions.co.nz. Substitutions are not permitted to the following, unless stated otherwise.

Coating system

- 4.1 COATING SYSTEM - EXPOSURE ZONE B-C (CAT 1-3)
Project Exposure Zone B-C to [NZS 3604](#), C 1-3 to ISO 9223.
Profile/location: ~
Base material: ~
Coating system: ~
Coating colour: ~
- 4.2 COATING SYSTEM - EXPOSURE ZONE D (CAT 4)
Project Exposure Zone D to [NZS 3604](#), C 4 to ISO 9223.
Profile/location: ~
Base material: ~
Coating system: ~
Coating colour: ~
- 4.3 COATING SYSTEM - EXPOSURE ZONE E (CAT 5)
Project Exposure Zone E to [NZBC E2/AS1](#), C 5 (C5I & C5M) to ISO 9223.
Profile/location: ~
Base material: ~
Coating system: ~
Coating colour: ~

Material - Euro Wall profiles

- 4.4 MDS EURO WALL - ANGLE SEAM WALL CLADDING
Location: ~
Material/BMT: ~
Installation: ~
Rib centres: ~mm
Seam: ~mm (seam height) x 12mm
Clips: Concealed clip
Clip material: Stainless steel
Clip fixing: 10 gauge x 30mm countersunk 304 stainless steel screws, 2No per clip.
- 4.5 MDS EURO WALL - EUROSPAN WALL CLADDING
Location: ~
Material/BMT: ~
Installation: Vertical - over horizontal cavity battens
Rib centres: ~mm
Seam: 44mm high x 9mm wide
Clips: Concealed clip
Clip material: Stainless steel
Clip fixing: 12 gauge x 65mm countersunk 304 stainless steel screws, 2No per clip.
- 4.6 MDS EURO WALL - FLAT LOCK WALL CLADDING
Location: ~
Material/BMT: ~
Installation: ~
Rib centres: ~mm
Clips: Concealed clips
Clip material: stainless steel
Clip fixing: 10 gauge x 30mm countersunk 304 stainless steel screws, 2No per clip.
- 4.7 MDS EURO WALL - FLAT PANEL SYSTEM WALL CLADDING
Location: ~
Material/BMT: ~
Installation: ~
Rib centres: ~mm
Seam: 20mm wide x 35mm deep recess
Clips: Proprietary concealed clip
Clip material: Aluminium
Clip fixing: 12 gauge x 65mm countersunk 304 stainless steel screws, 2No per clip.

- 4.8 MDS EURO WALL - HOOK SEAM WALL CLADDING
 Location: ~
 Material/BMT: ~
 Installation: ~
 Rib centres: ~mm
 Clips: Concealed clips
 Clip material: stainless steel
 Clip fixing: 10 gauge x 30mm countersunk 304 stainless steel screws, 2No per clip.
- 4.9 MDS EURO WALL - CASSETTE WALL CLADDING
 Location: ~
 Material/BMT: ~
 Installation: ~
 Rib centres: ~mm
 Seam: 20mm wide x 22mm deep recessed seam
 Fixings: 12 gauge x 65mm countersunk 304 stainless steel screws
- 4.10 MDS EURO WALL - LOCK SEAM WALL CLADDING
 Location: ~
 Material/BMT: ~
 Installation: ~
 Rib centres: ~mm
 Seam: 40mm wide x 8mm high seam
 Clips: Concealed clips
 Clip material: stainless steel
 Clip fixing: 10 gauge x 30mm countersunk 304 stainless steel screws, 2No per clip.
- 4.11 MDS EURO WALL -RANDOM MULTIRIB WALL CLADDING
 Location: ~
 Material/BMT: ~
 Installation: Vertically over horizontal cavity battens
 Rib centres/cover: ~mm
 Fixings: 12 gauge x 65mm countersunk 304 stainless steel screws
- 4.12 MDS EURO WALL - ROLL CAP WALL CLADDING
 Material/BMT: ~
 Installation: Vertical - over plywood substrate
 Rib centres: ~mm
 Seam: 32mm (seam height) x 50mm wide
 Clips: Concealed clips
 Clip material: ~
 Clip fixing: 10 gauge x 30mm countersunk 304 stainless steel screws, 2No per clip.
- 4.13 MDS EURO ROOF - ROLL SEAM ROOFING
 Material/BMT: ~
 Installation: Vertical - over plywood substrate
 Rib centres: ~mm
 Seam: 32mm (seam height) x 50mm wide
 Clips: Concealed clips
 Clip material: ~
 Clip fixing: 10 gauge x 30mm countersunk 304 stainless steel screws, 2No per clip.

Components

- 4.14 FLASHINGS - GENERALLY
 Profile: ~
 BMT/material: ~
 Coating system: To match roofing
 Coating colour: To match roofing
 Options:

4.15 PLYWOOD SUBSTRATE

Location: ~
Brand/type: CHH Woodproducts , Ecoply,
Thickness: ~mm
Grade: CD
Stress Grade: F8/F11
Treatment: H3.2 CCA
Fixing: ~

4.16 UNDERLAY OVER PLYWOOD SUBSTRATE

Location: ~
Note: Refer to 4161 UNDERLAYS, FOIL AND DPC.

4.17 EXTERIOR CAVITY BATTENS - NON STRUCTURAL

Location: ~
Type: Pinus Radiata H3.1
Size: 45x20mm
Fixing: Hot dipped galvanized nails, 40x2mm

4.18 CASTELLATED EXTERIOR CAVITY BATTENS - NON STRUCTURAL

Location: ~
Type: Pinus Radiata H3.2 Castellated and bevelled
Size: 45x20mm
Fixing: Hot dipped galvanized nails, 40x2mm

4.19 CAVIBAT EXTERIOR CAVITY WALL BATTENS - NON STRUCTURAL

Location: ~
Type: Cavibat non-structural, extruded fluted polypropylene cavity batten
Size: 45mm x 18mm
Fixing: Fixed in accordance with Cavibat requirements