

# ARCHITECTURAL METALFORMERS

Written specification for:  
flatlock wall cladding

Specification in:

*(Please select the appropriate metal to be used for your project)*

*Copper or Titanium Zinc or ColorCote Aluminium or ColorCote Zinalume*

## GENERAL

This section deals with the supply and fixing of Architectural Metalformers Smartclad flatlock wall cladding panels complete with accessories

## MANUFACTURER'S DOCUMENTS

Manufacturer's and supplier's documents relating to work in this section are:  
Architectural Metalformers technical literature. Copies are available from

Web: <http://www.archform.co.nz/>

Email: [ray@archform.co.nz](mailto:ray@archform.co.nz)

Telephone: 0800 501996

Facsimile: 09 2697279

## ABBREVIATIONS

The following abbreviations are used throughout this part of the specification:

BMT: Base metal thickness

NZMRM: New Zealand Metal Roofing Manufacturers Inc.

## QUALIFICATIONS

Installers to be ARCHITECTURAL METALFORMERS approved Installers.

## WARRANTY

*(Please select the appropriate metal to be used for your project)*

### ZINC

*Workmanship: 10 years*

*Materials: Zinc: 10 yrs standard warranty on all VM Pro Zinc material plus an additional 10yrs warranty due to Architectural Metalformers being an accredited VM Zinc installer. (20yrs in total)*

or

### COPPER:

*Workmanship: 10 years*

*Materials: 20 years*

or

### COLORCOTE ALUMINIUM and ZINCALUME

*Workmanship: 10 years*

*Perforate: 25 years (refer manufacturers warranty)*

*Coatings: 10 years (refer manufacturers warranty)*

From: Date of practical completion

Provide warranties on standard Architectural Metalformers warranty form.

Provide a project specific PS 3 document after completion of the project

## **PERFORMANCE**

### **FIXINGS, WIND**

Design and use the fixings appropriate for the wind zone (R) and topographical classification (T) of this site and building height; as required by NZS 3604 and the wind loads on various wall areas as given by NZS 4203 or AS/NZS 1170.2. Allow for specific loadings at corners and the periphery of the roof, where localized pressure factors apply.

## **PRODUCTS**

### **PLYWOOD SUBSTRATE**

Selected plywood substrate to be H3 treated, min 15mm. Tongue and groove or square edged grade C (faced sanded). Allow a 3mm expansion gap between sheets if using non T&G sheets.

- Plywood fixing general:

All plywood is to be installed in accordance with specific manufacturer's specifications.

Fixings to be recessed stainless steel screws, fixed to a minimum of 10mm and a maximum of 15mm from the edge @ 150mm centers along the perimeter. Plywood to be finished with all screw heads recessed below the ply surface

### **UNDERLAY**

Approved heavy weight breathable building paper with a minimum of 300mm overlap to all joints, applied to clean plywood substrate in accordance with manufactures specifications.

### **METAL SELECTION**

*(Please select the appropriate metal to be used for your project)*

[Titanium Zinc:](#)

*Pure natural Titanium Zinc by VM Zinc/Umicore*

**or**

[Copper](#)

*99.8% pure half hard Copper*

**or**

[ColorCote Aluminium \(ARX, AR8\)](#)

*ColorCote is a 70% PVF2 top coat aluminium substrate providing premium durability and weather durability under adverse environmental conditions*

*ColorCote Aluminium coated to AS1397*

**or**

[ColorCote Zinalume \(ZRX, ZR8\)](#)

*ColorCote is a 70% PVF2 top coat steel substrate providing premium durability and weather durability under adverse environmental conditions*

*ColorCote Steel coated to AS1397*

### **PROFILE**

Interlocking flatlock seam panels with hidden clips and fixers by Architectural Metalformers.

### **FLASHINGS**

Formable grade flashings, material to match selected roofing or cladding, to the same standards as the profiled sheets.

## **COMPONENTS**

### **FASTENERS**

Durability of all fasteners not less than the roofing material being fixed.

### **FIXING CLIPS**

316 or 304 stainless steel fixing clips fixed to ply substrate with 25mm x 2.5 annular grooved stainless steel flat head nails at maximum 300-400mm centers (depending on size and design of panels, wind loading)

### **RIVETS**

Minimum diameter 4.0mm sealed rivets.

## **ACCESSORIES**

### **SEALANT**

Neutral curing mastic sealant or polymer sealant.

## **EXECUTION**

### **INSPECTION**

Inspect the wall framing and supporting structure to ensure that it is complete and fully braced ready for plywood substrate and cladding.

### **PLYWOOD SUBSTRATE**

Selected plywood substrate to be H3 treated, min 15mm. Tongue and groove or square edged grade C (faced sanded). Allow a 3mm expansion gap between sheets if using non T&G sheets.

All plywood is to be installed in accordance with specific manufacturer's specifications.

Fixings to be recessed stainless steel screws, fixed to a minimum of 7mm and a maximum of 15mm from the edge @ 150mm centers along the perimeter and 300mm centers on intermediate line of support.

Plywood to be finished with all screw heads recessed below the ply surface and with no protruding edges.

### **HANDLING**

Avoid distortion and contact with damaging substances, including cement. Do not drag sheets across each other and other materials. Protect edges and surface finishes from damage.

### **SEPARATION**

Isolate dissimilar materials 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.

## **APPLICATION**

### **SET-OUT**

Carefully set out with side laps away from the prevailing wind, with the widths of end sheets the same, all sheets square and oversailing the drip edge true to line. Check during fixing to eliminate creep or spread and string lines along the face of the cladding to keep fastenings in line.

### **THERMAL MOVEMENT**

Cladding fixing and jointing to conform with Architectural Metalformers requirements for thermal movement.

NZBC E2/AS1: 8.4.10 Allowance for expansion, notes specific design is required for lengths exceeding 18 metres.

### **FIX UNDERLAY**

Fit and lap approved building paper/ underlay over the cladding plywood substrate, with 12mm stainless steel or nylon staples. Underlay to be installed to manufacturers recommendations and specifications.

### **MARKING AND CUTTING**

Cut only with shearing tools. Do not use black lead pencils for marking aluminium/zinc coated products.

### **FIX WALL PANELS**

Install and fix in accordance with the NZMRM NZ Metal roof and wall cladding Code of practice recommendations, and to Architectural Metalformers approved methodologies. Use only approved screws and collated nails as required by Architectural Metalformers.

Fix sheets in place using the expansion clips as previously detailed.

### **SOLDERING**

Where required, soldering of joints is permitted in accordance with best trade practice. Use approved soldering flux and 60/40 lead tin solder.

### **FLASH**

Flash walls and penetrations to approved details and in accordance with the NZMRM NZ Metal roof and wall cladding Code of practice recommendations, and to Architectural Metalformers approved methodologies. Cut accurately and fix using hidden sealant and rivets to the Architectural Metalformers approved methodologies to form a weatherproof cover.

All flashings to comply with E2/AS1 and best trade practice

### **FIX RIDGES AND HIPS**

Cut accurately and fix using primary fasteners to the purlins. Join using sealant and rivets to detail and to the NZMRM NZ Metal roof & wall cladding - Code of practice. All laps 150 mm minimum. All flashings to comply with E2/AS1 requirements

### **PENETRATIONS AND JUNCTIONS**

Confirm that openings have been prepared ready for the installation of skylights and other penetrations through the cladding. All flashings to comply with E2/AS1 requirements

Flash and over flash all penetrations through the cladding. All flashings are to comply with E2/AS1 requirements.

## SELECTIONS

### PLYWOOD SUBSTRATE

Type: H3, CCA treated / CD grade F11

Thickness: 15mm minimum

### CLADDING UNDERLAY

Brand: Thermakraft covertek 403 or similar approved building paper

Type: Heavy duty breathable roofing underlay

### FLATLOCK PANELS

Seam profile: Flatlock seam

Seam height: N/A

Material: *(Please select the appropriate metal and profile to be used for your project)*

*VM Quartz Zinc Plus*

*BMT : 0.70mm*

**or**

*Copper*

*99.8% pure half hard Copper*

*BMT : 0.60mm*

**or**

*ColorCote Aluminium*

*ColorCote is a 70% PVF2 top coat aluminium substrate*

*BMT : 0.90mm*

**or**

*ColorCote Zinalume*

*ColorCote is a 70% PVF2 top coat steel substrate*

*BMT : 0.55mm*

Colour: To be confirmed