

ARCHITECTURAL METALFORMERS

Written specification for:
Smarttray 510 standing seam tray roofing

(Please select the appropriate finish for your project)

Single Lock or *Double Lock* or *Batten Cap* or *Snap Lock*

Specification in:

Copper or *Titanium Zinc* or *ColorCote Aluminium* or *ColorCote Zincalume*

GENERAL

This section deals with the supply and fixing of Architectural Metalformers Smarttray 510 standing seam tray roofing 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

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

- Plywood fixing to drip edge:

Allow a max 50mm overhang from the finished face of the fascia board to the external edge of the ply. This will allow for a sufficient drip edge to be formed. Ply to be square edge finished

- Plywood fixing to vented ridge:

Allow a 20mm gap between the faces of the finished ply edges at the ridge and hip line to allow for sufficient venting.

UNDERLAY

Approved heavy weight roofing underlay 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

SMARTTRAY 510 PROFILE

(Please select the appropriate profile for your project)

Smarttray 510 standing seam tray panels, single or double lock by Architectural Metalformers.

or

Smarttray 510 standing seam tray panels, batten cap profile by Architectural Metalformers.

or

Smarttray 305 standing seam tray panels, snap lock profile by Architectural Metalformers.

SMARTTRAY 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

Smarttray 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 400 - 600mm centers (depending on pitch and wind loading)

Custom sliding clips to be used for all sheets over 4m in length.

RIVETS

Minimum diameter 4.0mm sealed rivets.

ACCESSORIES

SEALANT

Neutral curing mastic sealant or polymer sealant.

EXECUTION

INSPECTION

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

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. Use soft, flat sole shoes when fixing and for all other work on the roof.

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 gutter true to line. Check during fixing to eliminate creep or spread and string lines along purlin centers to keep fastenings in line.

FORMING

Form stop-ends and downturns to the roofing manufacturer's details and techniques using the required tools.

END LAPS

End laps are only permitted where specifically detailed and approved by Architectural Metalformers

THERMAL MOVEMENT

Roof 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.

Sliding clips to be used where roofing material exceeds 4 metres in length.

FIX UNDERLAY

Fit and lap approved roofing underlay over the roofing or cladding plywood substrate, with 12mm stainless steel or nylon staples with a minimum 20 mm oversail into gutter. 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 ROOF 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 roof to parapets, 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

FIX VERGE AND CAP FLASHINGS

Cut accurately and fix using primary fasteners to the purlins. Join using sealant and rivet 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 roof. All flashings to comply with E2/AS1 requirements

Flash and over flash all penetrations through the roofing or 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

SMARTTRAY 510 standing seam tray roofing panel

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

Profile: Smarttray 510 standing seam tray roofing sheets

Seam profile: *single lock* or *double lock* or *batten cap*

Seam height: *38mm* or *25mm* or *38x50 batten cap*

Material:

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