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SmartTray Metal Cladding (AMFSTMC) BPIR Product Statement – Class 1

1. Company Details

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2. Product Names in the SmartTray Metal Cladding range

Standing seam, Lock Seam, Barcode, Flatlock, Batten Cap, Snap Lock.

3. Product Description

The **SmartTray Metal Cladding** range is a selection of tray cladding profiles that are manufactured in our workshop in Takanini in aluminum, copper, zinc, steel, and bronze. Lock Seam is however only available in aluminium and steel.

They are available in a range of colours and finishes. These can be found at www.archform.co.nz

Material options:

Copper: DHP Alloy C122

Aluminium: Euramax Aluminium – 5754 Series H42 or 5005 Series H44

Aluminium: PCC Alumigard – 5005 or 5052 Marine Grade Temper H34

Bronze: Alloy 95/5 Half Hard

Steel: PCC Magnaflo and ZinaCore

Zinc: Quartz Plus or Anthra by VM Zinc

4. Relevant Building Code clauses

- B1 Structure: Performance clauses B1.3.1, B1.3.2, B1.3.3 (f, h, m), B1.3.4
- B2 Durability: Performance clause B2.3.1 (b)
- C3 Fire affecting areas beyond the fire source: Performance clauses C3.5, C3.6, C3.7
- E2 External Moisture: Performance clauses E2.3.2, E2.3.5, E2.3.7
- F2 Hazardous Building Materials: Performance clause F2.3.1



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5.How the products contribute to compliance/ intended use

For use as a wall cladding on residential and commercial buildings.

B1 Structure

B1.3.1 – B1.3.4

All **SmartTray** Metal Cladding Systems are lightweight as they have thin base metal thicknesses and are built using low density materials. This benefits the sub-structure of which the cladding is connected to.

The **SmartTray** Metal Cladding system allows for thermal expansion and contraction of metal sheets to safeguard the possibility of rupturing, becoming unstable or collapsing. Thus complying with NZBC E2/AS1: 8.4.10. **SmartTray** products are mechanically fixed using hidden clips which bind the cladding to purlins or the substrate below. The fixing system is hidden from the environment, thus increasing durability and lifespan. Refer to the design and installation requirements for further information.

Architectural Metalformers use the appropriate fixings for wind zone (R) and topographical classification (T) of the 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 Specific loading at corners and the periphery of the roof are allowed for as these are where localised pressure factors apply.

Refer to Architectural Metalformers written specifications for more details.

B2: Durability

B2.3.1

The durability is dependent on materials and the environment. The minimum durability warranty is 15 years for all product materials. Refer to Architectural Metalformers warranty terms for each individual warranty report.

C3: Fire affecting areas beyond the fire source

C3.5 – C3.7

Architectural Metalformers cladding materials are all non-combustible materials; therefore, complying with Section C3.7 of the Building Code.

E2: External Moisture

E2.3.2, E2.3.5, E2.3.7

Architectural Metalformers flashing either shed or divert water from sensitive areas including building periphery, changes in direction of cladding, intersections between cladding materials, and wall penetrations.



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Architectural Metalformers cladding material, minimum thickness, grade, and exposure requirements comply with Section 4 Acceptable Solutions of E2/AS1. All flashings are either hemmed or hooked as required by Section 4.5 of E2/AS1. For extra high wind zones, hems are always used.

Joining and sealing laps are joined using rivets and sealant.

Refer to Architectural Metalformers written specifications for more information.

F2 Hazardous building materials

F2.3.1

Architectural Metalformers cladding materials are safe when handled with precaution. Handling instructions are provided on the written specifications. There are no required acceptable solutions or verification methods for this clause.

6.Limitations on use of SmartTray Roofing

Only Architectural Metalformers trained installers are qualified to install the product range. All repairs are to be first directed to Architectural Metalformers for review prior to undertaking any repair work.

All limitations, constraints and requirements are provided in the corresponding Architectural Metalformers written specifications for the various profiles and material types.

7.Design requirements that would support the appropriate use of the range Standing Seam, Barcode, and Batten:

Geometrical Properties:

Width: 510mm standard (optional width variation of 228mm - 510mm dependent on coil size)

Length: 0.3m – 27.0m depending on material expansion and contraction properties

BMT: 0.55mm – 0.9mm

If part of a system, a description or list of other components:

Used with a H3 treated 15mm-19mm tongue and groove or square-edged plywood substrate. 403 ThermaKraft Covertek underlay installed over plywood. Plywood to be finished with all screw heads recessed below the ply surface.

It is installed with corresponding Architectural Metalformers flashings in accordance with E2/AS1 requirements.

Other properties:

Single lock or double lock

Aluminium and steel cladding are available in colours provided by respective suppliers i.e. PCC and Euramax through Ambro Metals.

Copper, zinc, and bronze are not painted and oxidise accordingly.



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Lock Seam:

Geometrical Properties:

Width: 502mm standard
Length: 0.3m – 12.0m depending on material
BMT: 0.55mm-0.9mm depending on material

If part of a system, a description or list of other components:

Installed on H3.1 structural cavity battens at maximum spacing between centres of 450mm. Corflute installed on cavity battens to provide impact resistance. It is installed with corresponding Architectural Metalformers flashings in accordance with E2/AS1 requirements.

Other properties:

Aluminium and steel cladding is available in colours provided by respective suppliers i.e. PCC and Euramax through Ambro Metals.

Copper, zinc, and bronze are not painted and oxidise accordingly.

Flatlock Panel:

Geometrical Properties:

Width: 400mm standard
Length: 0.3-4.0m depending on material
BMT: 0.55mm-2mm depending on material

If part of a system, a description or list of other components:

Used with a H3 treated / CCA treated / CD grade F11 15mm-19mm tongue and groove or square-edged plywood substrate.

403 or similar ThermaKraft Covertek underlay installed over plywood.

It is installed with corresponding Architectural Metalformers flashings in accordance with E2/AS1 requirements.

Other properties:

Aluminium and steel roofs are available in colours provided by respective suppliers i.e. PCC and Euramax through Ambro Metals.

Raw aluminium available in all New Zealand powder coated colours.

Snap Lock:

Geometrical Properties:

Width: 305mm standard
Length: 0.3m – 12.0m depending on material expansion and contraction properties
BMT: 0.55mm – 0.7mm

If part of a system, a description or list of other components:

Used with a H3 treated 15mm-19mm tongue and groove or square-edged plywood substrate. 403 or 405 ThermaKraft Covertek underlay installed over plywood.

It is installed with corresponding Architectural Metalformers flashings in accordance with E2/AS1 requirements.



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Other properties:

Aluminium and steel roofs are available in colours provided by respective suppliers i.e. PCC and Euramax through Ambro Metals.

Copper and zinc are not painted and oxidise accordingly

Further information is available in the written specifications.

8. Installation requirements

Only Architectural Metalformers trained installers are qualified to install this range.

Refer to our written specification sheets for further information on installation.

ThermaKraft product link:

<https://www.thermakraft.co.nz/products-technical-information>

9. Maintenance requirements

The maintenance required is different for each material. Linked below are the various material maintenance requirements.

<https://www.colorcote.co.nz/product-range/magnaflow/>

<https://www.colorcote.co.nz/product-range/alumigard/>

<https://euramaxcladding.com/our-products/>

<https://duluxpowders.co.nz/colour/>

Architectural Metalformers provide warranty for copper and zinc. Copper has a warranty of 20 years. Zinc has a warranty of 20 years as Architectural Metalformers are an accredited VM Zinc installer.

10. Declaration – Ban and Warnings

Architectural Metalformers have never been subject to bans or warnings under Section 26 of the New Zealand Building Act 2004.