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smarttray™ Roofing Systems

Smarttray™ 510 standing seam custom panel

introduction

Due to the nature of the materials used we are able to accomodate most non standard roof designs

The design and nature of the custom-made panel profile will often determine the type of material suitable for your project. The full range of materials available are copper, zinc, aluminium and Colorcote™ Zinalume™ .

Excellent examples of **smarttray™ 510** custom panel roofing is the recently completed ASB Head Office conical feature roof in the Auckland Viaduct, the Auckland War Memorial Museum and the Vodafone Building in Auckland's Viaduct. In all these examples tapered panels were formed to create a very unique and dynamic splayed roof design.

As these custom panels are very unique and require a lot of design work we request that you consult with Architectural Metalformers as early as possible in the design

alternative solution

All **smarttray™** standing seam tray products are considered alternative solutions under the current building code. Please consult Architectural Metalformers who will asist you with the relevant required technical information to succesfully specify the product.

product overview

material	Copper, Zinc, Colorcote™ Aluminium and , Colorcote™ Zinalume™	
minimum pitch	Profile and design dependent - refer to our technical team	
length	Profile dependent	
width	Profile dependent	
thickness	Copper	0.5mm, 0.55mm, 0.6mm, 0.7mm
	Zinc	0.7mm, 1mm, 1.5mm
	Aluminium ARX	0.7mm, 0.9mm
	Colorcote™ Zinalume™	ZRX 0.55mm ZR8 0.55mm



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applications

We produce **smart**tray™ 510 custom panel roofing for new homes, alterations and commercial buildings.

We can custom-make the following:

- > Roofing
- > Convex and concave roofs
- > Internal ceilings/soffits
- > Canopies

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design considerations

When specifying a custom-made profile, consideration should be given to the following:

- > Material type
- > Roof pitch and shape
- > Wind loading
- > Venting of plywood substrate
- > Environmental factors, urban, rural or coastal

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availability

Please consult with Architectural Metalformers as early as possible in the design process regarding stock availability for your roofing requirements.

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flashing details

Robust flashing design, manufacture and installation are the key to a total waterproof solution. All these crucial steps are controlled and overseen in-house.

We use flashing methodologies that are well proven in Europe and the USA for hundreds of years and our flashings comply and often surpass E2 regulations.

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plywood substrate

All **smart**tray™ custom panel roofing requires a solid plywood substrate. We recommend a minimum of 15mm H3 plywood installed.

please refer to the installation category in the main menu for a thorough plywood installation specification.



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underlay and fixings

We install an approved roofing underlay between the plywood substrate and our **smart tray**™ custom panel sheet. We fit all trays with concealed sliding clips that are fixed using 316 stainless steel collated nails.

The clips are fixed at 400-500mm centres and have a dual function: To allow the mechanical resistance of the roof and free expansion of the metal itself.

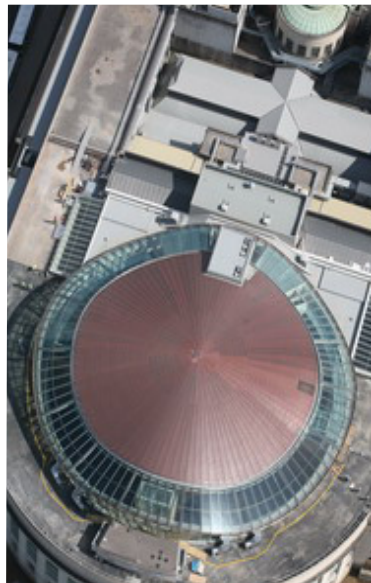
For copper and zinc we use marine grade stainless steel clips

For aluminium and Colorcote™ we use Colorcote™ Zinalume™ clips.

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smart tray™ custom roofing - over 900 unique splayed tapered panels with cross welted joints - ARX Aluminium

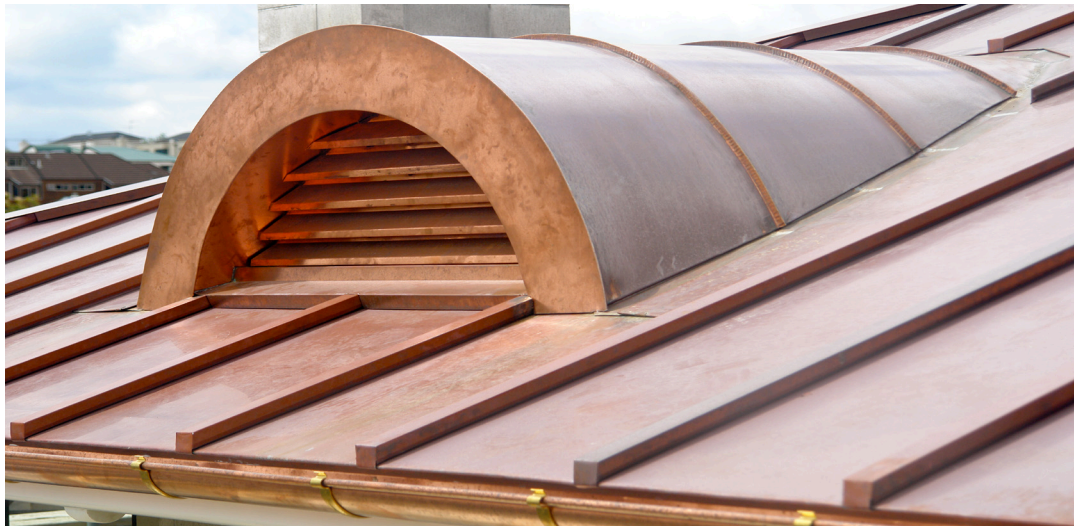


smart tray™ custom roofing - 1760 unique splayed panels with cross welted joints had to be hand folded to accommodate the tapered curved design of the roof - copper

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smart tray™ custom panel splayed sheets form this curved roof feature - copper



smart tray™ custom panel - barrel vaulted dormer windows - copper



smart tray™ custom panel - splayed copper panels were used to achieve the tight corner radius



smart tray™ custom panel - tapered aluminium panels created the faceted rolled hips