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smart tray™ Roofing Systems

Smart tray™ 305 snap-lock

introduction

The **smart tray™** 305 snap-lock profile is suitable for most roofing projects.

With its unique profile, it is particularly suited to accommodate curved roof designs with a maximum formed width of 305mm. (concave and convex shapes)

Suitable to a minimum pitch of 5°, this profile is widely used in all residential projects needing to conform to height restrictions and low roof designs. It looks equally attractive on a 45° pitch roof or used as a wall cladding.

alternative solution

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

product overview

smart tray™ 305 snap-lock roofing panels are formed to the exact measurements required and installed over a solid plywood base with approved roofing underlay.

materials Copper, Zinc, Colorcote™ aluminium Colorcote™ Zinalume™

minimum pitch 5°

length Roll formed continuous lengths

width 305mm effective cover

thickness	Copper	0.5mm, 0.55mm, 0.6mm, 0.7mm
	Zinc	0.7mm, 1.0mm
	Aluminium ARX	0.7mm, 0.9mm
	Colorcote™ Zinalume™	ZRX 0.55mm ZR8 0.55mm

upstand height 23.5mm



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> applications

smart tray™ 305 snap-lock profile is suitable for most commercial and residential projects and is also available as a wall cladding.

Can be applied to:

- > Traditional roofing shapes
- > Curved roofs
- > Internal ceilings/soffits
- > Canopies

> design considerations

When you are specifying **smart tray™** 305 snap-lock roofing, consideration should be given to the following:

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

> availability

Copper coil for **smart tray™** 305 snap-lock roofing is usually a stock item.

Zinc, aluminium, and Colorcote™ Zinalume™ are subject to supplier lead times.

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

> 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.

> plywood substrate

All **smart tray™** 305 snap-lock roofing requires a solid plywood substrate. We recommend a minimum of 15mm H3 treated plywood be 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 underlay between the plywood substrate and our **smart tray™** 305 snap-lock panels. Paper underlay is stapled to the ply using 12mm stainless staples

smart tray™ 305 snap-lock tray panels are snap-locked with the ribs interlocking without the use of clips or lock seaming. The panels are fixed through the expansion slots with 316 stainless steel screws at 500mm centres which are concealed by the next panel.

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thermal expansion and contraction

To allow for thermal movement, our **smart tray™** 305 snap-lock roofing panels are fixed through an expansion slot.

This allows for expansion and contraction without the associated “oil canning” as seen in some tray roofs.

The following is the expansion rate of various metals over a 70°C temperature change for a 10m length of product.

Copper	11.9mm
Zinc	15.4mm
Aluminium	14.8mm
Zincalume™	7.7mm



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smart tray™ snap-lock 23 - copper



smart tray™ snap-lock 23 - copper



smart tray™ snap-lock 23 - Colorcote ZMX metal



smart tray™ snap-lock 23 curved roofing - copper



smart tray™ snap-lock 23 - copper