

Cu

Zn

Al

Fe

# interlocking cladding systems

## > flatlock seam

## > introduction

Architectural Metalformers will manufacture custom manufacture flatlock panels to suit the projects' specific requirements.

We are able to use copper, zinc, steel or aluminium for flatlock cladding

## > alternative solution

All flatlock 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.

## > rainscreen based solution

Any interlocking seam cladding system is regarded as a rain-screen solution and must be fitted on a well drained ventilated and drained cavity over a waterproofing membrane.

## > product overview

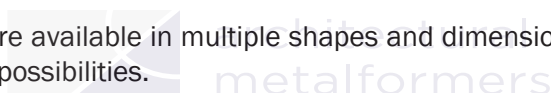
Flatlock cladding is a flat sheet with four folded edges that create the nearly flat connecting seams. Besides creating the neat overlapping connection points, these folds allow the panels to be secured via a hidden clip system and/or innovative concealed fixings.

Flat lock panels offer a simple yet elegant cladding solution characterized by a longitudinal seam on a horizontal, vertical, or diagonal orientation.

Ideally suited to contemporary architecture the soft folded edges create a soft pillowing affect with fantastic visual texture. If applied in a sympathetic manner this profile will compliment any building style.

The panels require a 15mm minimum plywood substrate for support as they have no structural integrity on their own.

Flatlock panels are available in multiple shapes and dimensions, providing virtually unlimited design possibilities.



Cu

Zn

Al

Fe

<b>material</b>	copper, zinc , steel and aluminium	
<b>panel shape</b>	To suit design	
<b>thickness</b>	Copper	0.5mm, 0.55mm, 0.6mm, 0.7mm
	Zinc	0.6mm, 0.7mm, 0.9mm
	Aluminium	0.7mm only
	Colorcote™ Zinalume™	0.55mm

## > **design considerations**

When specifying an Architectural Metalformers flatlock cladding system, consideration should be given to the following:

- > Material type
- > Horizontal or vertical format
- > Wind loading
- > Environmental factors commercial, urban, rural or coastal

## > **availability**

Copper coil for flatlock cladding 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 cladding 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 flatlock cladding 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.*

For all torch on compatability requirements please refer to [www.ecoply.co.nz](http://www.ecoply.co.nz)

## > **underlay and fixings**

We install wall underlay between the plywood substrate and our flatlock cladding profile.



architectural  
metalformers

Cu

Zn

Al

Fe

&gt;

## thermal expansion and contraction

To allow for thermal movement, our column cladding is fixed using a clip system or a hidden nail system. This allows for expansion and contraction without the associated “oil canning” as seen in some claddings.

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

<b>Copper</b>	11.9mm
<b>Zinc</b>	15.4mm
<b>Aluminium</b>	14.8mm



architectural  
metalformers