

May 8, 2006

## STANDING SEAM COPPER ROOFING SPECIFICATION

### 1. Design

#### 1.1. General

All roof cladding design drawings as well as copper layout and joint detail drawings should be reviewed by the copper manufacturer prior start of installation

### 2. Materials

#### 2.1. KME Copper half hard R240 manufactured to EN 1172, in continuous length

Minimum thickness roof cladding 0.60 mm  
Minimum thickness wall cladding 0.70 mm

#### 2.2. Finish

KME Copper finish TECU-Classic shall be natural for all visible areas.

#### 2.3. Accessories

##### 2.3.1. Solder

Lead / tin soft solder containing 40% tin and 60% lead.

##### 2.3.2 Flux

Z-04-S flux is recommended.

##### 2.3.3 Sealant

100% pure silicone rubber with neutral cure, non-acid based.  
Colour: dark grey or translucent.

#### 2.4 Membrane

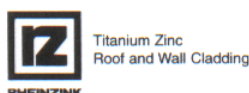
Grace underlay Bituthene 3000 .

#### 2.5 Underlay

Enkamat 7210 spacer mat (polyamide separation layer).

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## 2.6 Fixings

### 2.6.1 Nails

Copper nails, self-tapping screws with large flat head 2.5x19mm to install underflashings & starter strips.

### 2.6.2 Screws

SS counter sunk, undercut screws. A gauge, 20 mm to install fixing clips.

### 2.6.3 Fixing clips

SS-fixed type and sliding type fixing clips.

## 2.7 Substructure-Plywood

### 2.7.1 Substructure

Roof: Structural plywood D/D grade min. 19mm, A bond.  
Wall: Structural plywood D/D grade min. 17 mm, A bond.

### 2.7.2 Substructure-Secondary Steel, to fix plywood sheets

Wall: Square Hollow Section (mild steel) to curved wall areas, 35mm spaced at 600mm  
Top Hat Section galvanized to straight wall areas, 35mm spaced at 600mm

Note: Use S/S material or separate metals to avoid direct contact, where required.

## 2.8 Safety Mesh for roof applications

To comply with Australian safety requirements.

## 2.9 Insulation

With vapor barrier, the vapor barrier has to be installed to warm side of application, check with Engineer on climate zone requirements.

## 3. Fabrication

### 3.1. Forming

The trays should be manufactured off site with a roll former.

Additional formwork like rounding, bending and folding can easily be carried out with conventional tools and equipment. The minimum bending radius is 1.75 mm. Sharp instruments for marking and bending should be avoided.

## 4. Delivery, Storage and Handling

- 4.1. Copper coils and sheets should only be delivered to site when work is ready to start.
- 4.2. Ensure that no water penetrates the coils or stacked sheets during transport and storage
- 4.3. Store material in a dry, ventilated room.

## 5. Installation

- 5.1. Installer must be approved by supplier of the materials before any work is commenced and must be specifically trained and experienced in the application of copper to have a material warranty issued.

The Subcontractor should provide documented proof of successfully installed non-ferrous metal installations of similar project size.

Please contact **Craft Metals** for approved installers. Phone **02 94824166, 03 9850 8029**

- 5.2. The sequence of installation is from bottom to top
- 5.3. Dimensions of trays:

Roofing:	Max. length:	10,000 mm	
	Max. width:	670 mm girth	(600 mm between seams )
Parapet:	Max. length:	4000mm	
Wall:	Max. length:	6000mm	
	Max. width:	570mm girth	(500mm between seams)

- 5.4. Panels, trays, copings and flashings shall be fixed in a manner to allow for thermal expansion and contraction of the metal.

## 6. Joints

- 6.1. Provide double standing seam technique for roof claddings below 25° roof pitch and angle seam-, or a roll cap technique for wall claddings.
- 6.2. All joints - including expansion joints - within the copper roof system and with materials adjacent to the copper shall be rain proof.

- 6.3. Joints at penetrations and flashings should be made water tight by means of soldering, welting or double welting.
- 6.4. The minimum required overlap depends on the roof pitch; refer to copper manufacturers recommendations
- 6.5. Fixing Clips S/S  
Fasten every fixing clip with two S/S undercut screws 3/8".  
Use sliding clips if the trays are longer than 3000 mm.  
The distance between fixing clips should not exceed 280 mm.  
Refer to copper manufacturers recommendations regarding the position and amount of clips required.
- 6.6. Separation of copper elements to other metals (except for stainless steel) required, to avoid bimetal reactions.

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Titanium Zinc  
Roof and Wall Cladding

