

**Project No.** 150457

**Client:** Council of the Isles of Scilly

**Tender Issue** 10/11/2017

**STRIDE TREGLOWN**  
ARCHITECTURE

## **Carn Gwavel School**

**10 November 2017**

**This document includes:**

| Code | Section                                     | Revision | Dated |
|------|---|----------|-------|
| H72  | Aluminium strip/ sheet coverings/ flashings |          |       |

## **H72 Aluminium strip/ sheet coverings/ flashings**

### **TYPES OF ALUMINIUM WORK**

#### **470 MISCELLANEOUS FLASHINGS GENERALLY**

- Aluminium: Coated sheet/ strip.
  - Alloy designation: -.
  - Temper: -.
  - Finish: Polyester Powder Coated.
  - Thickness: 2 mm.
- Dimensions:
  - Lengths: Not more than to be agreed.
- Fixing: to be agreed.

### **GENERAL REQUIREMENTS/ PREPARATORY WORK**

#### **510 WORKMANSHIP GENERALLY**

- Standard: Generally to CP 143-15.
- Fabrication and fixing: To provide a secure, free draining and completely weathertight installation.
- Operatives: Trained in the application of aluminium coverings/ flashings. Submit records of experience on request.
- Measuring, marking, cutting and forming: Prior to assembly wherever possible.
- Marking out: With pencil, chalk or crayon. Do not use scribes or other sharp instruments without approval.
- Folding: With mechanical or manual presses to give straight, regular and tight bends, leaving panels free from ripples, kinks, buckling and cracks. Use hand tools only for folding details that cannot be pressed.
- Surface protection: Fully coat surfaces to be embedded in concrete or mortar with high build bitumen based paint, after folding.
- Sharp metal edges: Fold under or remove as work proceeds.
- Joints: Do not use sealants to attain waterproofing.
- Finished aluminium work: Fully supported, adequately fixed to resist wind uplift and able to accommodate thermal movement without distortion or stress.
  - Protection: Prevent staining, discolouration and damage by subsequent works.

#### **515 WELDING**

- In situ welding: Not permitted.

#### **516 WELDING**

- In situ welding: Permitted subject to completion of a 'hot work permit' form and compliance with its requirements.

**535 INTEGRITY OF ALUMINIUM**

- Requirement: Design coverings/ flashings and methods of attachment to prevent loss of weathertightness and permanent deformation due to wind pressure or suction.
- Wind loads: To be determined.
- Structural requirements:
  - Generally: As section B50.
  - Modifications: TBC.
- Design: Complete in accordance with the designated code of practice to satisfy specified performance criteria.

**550 LIGHTNING PROTECTION**

- Aluminium coverings: Attach the following to a lightning protection system refer to drawings. Lightning protection to utilise steel frame/ rc frame to sub contractor design.-.
- Electrical continuity: Provide between aluminium strips/ sheets via welting of joints.

**555 LAYOUT**

- Setting out of longitudinal and cross joints: Submit proposals.

**560 CONTROL SAMPLES**

- General: Complete areas of finished work and obtain approval of appearance before proceeding:
- Size: TBA.
- Location: Parapets.

**610 SUITABILITY OF SUBSTRATES**

- Condition: Dry and free of dust, debris, grease and other deleterious matter.

**FIXING**

**710 FIXINGS FOR CLIPS**

- Nails to timber substrates: Aluminium to BS 1202-3 for aluminium clips. Stainless steel (austenitic) for stainless steel clips.
  - Shank type: Annular ringed or helical threaded.
  - Shank diameter: Not less than 2.65 mm.
  - Head: Flat.
  - Length: Not less than 25 mm or equal to substrate thickness.
- Screws to concrete/ masonry substrates: Sherardized or zinc plated steel to BS 1210, table 2, or aluminium to BS 1210, table 5 for aluminium clips. Stainless steel (austenitic) to BS 1210, table 4 for stainless steel clips.
  - Diameter: Not less than 3.35 mm.
  - Length: Not less than 25 mm.
  - Washers and plastic plugs: Compatible with screws.
- Screws to composite metal decks: Self tapping, as recommended by the deck and aluminium manufacturer/ supplier for aluminium or stainless steel clips.

## **JOINTING**

### **810 FORMING DETAILS**

- Folds and welts: Form without thinning or splitting the strip/ sheet.
- Thermal movement: Form details with appropriate allowance for movement, without impairment of security at full expansion or contraction.

### **860 DRIP/ STEP JOINTS**

- Strip/ Sheet from below step: Fold up full height of upstand and fix to top edge.
- Form aluminium underlap/ continuous clip:
  - Cover to roof slope: Not less than 100 mm with anticapillary welt at top edge.
  - Projection: 25 mm for forming into drip welt.
  - Downstand: Not less than 40 mm with welt at bottom edge.
  - Fixing: To roof slope at 100 mm centres, avoiding through fixings at longitudinal joint positions.
- Strip/ Sheet from above step: Fold around underlap projection and single welt to form a drip.