

VMZINC standing seam roofing on vented plywood – August 16

H74 Zinc strip / sheet coverings / flashings

To be read with preliminaries / general conditions

TYPES OF ZINC WORK

110 ROOFING Main Roof

- Roofing system: VMZINC Standing seam roof for slopes ranging from 3 degrees to vertical.
- Substrate: Exterior grade 18mm plywood (EN314-3 & EN636-2). The plywood deck must be even and flush with all joints being less than 2mm in height. Nails should be driven into the plywood so as to avoid abrasive contact with the underside of the zinc roofing sheets. Ensure that any treatment which the plywood may have received (fungicides or insecticides) is compatible with the zinc cladding sheets. A continuous airspace of at least 50mm must be allowed for between the plywood and insulation (which can be protected by the VMZINC membrane).
- Underlay: No underlay is required but a VMZINC membrane can be installed over the plywood.
- VMZINC: As clause 520.
 - Finish: VMZINC PLUS in QUARTZ-ZINC.
 - Thickness: 0.7mm
- Longitudinal joints: 25mm high double lock standing seam.
 - Spacing: 430mm, 530mm, 600mm.
- Cross joints: In accordance with manufacturer's recommendations, double welt or roof step depending on slope.
 - Spacing, panels to be no longer than 13m.
- Ventilated eaves detail: As clause 340 .
- Ridge/ Hip detail: Ventilated ridge. As clause 310
- Verge detail: Standing seam termination as clause 370.
- Overall roof system to have a BRE Green Guide rating of at least A with no more than 0.615 BRE ecopoints (measured over 80 years for 1m²).

150 Dormers

- Dormer zinc: As clause 520.
 - Finish: VMZINC PLUS in QUARTZ-ZINC
 - Thickness: 0.7mm
- Joints: Standing seam and or flat lock joints.

310 Vented ridge/hip detail with minimum 10mm air inlet

- Ridge: As clause 520.
 - Finish: VMZINC PLUS in QUARTZ-ZINC
 - Thickness: 0.7mm or 0.8mm.
- Joints: Spacing: 2m.
- Ridge Cap:
 - Held in place with stainless steel clips attached to the zinc standing seam.
 - Continuous G3 ridges strip zinc available in QUARTZ-ZINC and ANTHRA-ZINC (220018337 and 220018339) fixed with stainless steel clip (220018332) and decompression strip G3 (220018331)

340 Vented standing seam eaves with minimum 10mm air inlet

- Eaves zinc: As clause 520.
 - Finish: VMZINC PLUS in QUARTZ-ZINC.
 - Thickness: 0.7mm or 0.8mm.
- Joints: Spacing: 2m
- Eaves Strip:
 - T plate in zinc or galvanized steel.
 - Continuous G3 eaves strip with hem in zinc available in QUARTZ-ZINC PLUS and ANTHRA-ZINC PLUS (220018500 or 220018499)

370 Standing seam verge

- Ridge: As clause 520.

- Finish: VMZINC PLUS in QUARTZ-ZINC, ANTHRA-ZINC or Pigmento Red, Green, Blue or Brown or Azengar.
- Thickness: 0.7mm or 0.8mm
- Joints: Spacing: 2m.
- Top edge:
 - Standing seam longitudinal joint: Position flush with verge.
 - Forming: Secure top of verge into double welt and clips of standing seam.
- Bottom edge:
 - Continuous clip: Fix at 200mm centres.
- Alternative verge continuous G3 verge strip with hem in zinc available in QUARTZ-ZINC PLUS and ANTHRA-ZINC PLUS (220018500 or 220018499)

GENERAL REQUIREMENTS/PREPARATORY WORK

510 WORKMANSHIP GENERALLY

- Standard: Generally to CP 143-5.
- Fabrication and fixing: To provide a secure, free draining and completely weather tight installation.
- Installation Company and operatives: Trained in the application of zinc coverings/flashings. Submit records of experience on request. **VMZINC at Work** installers offer evidence of successfully completed projects, records of VMZINC training and extended material warranties.
- Measuring, marking, cutting and forming: Prior to assembly wherever possible.
- Metal temperature: Do not form zinc when the metal temperature is below 7°C. (10°C for Pigmento).
- 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. The minimum bending radius is thickness x 2 (x 3 for Pigmento).
- Sharp metal edges: Fold under or remove as work proceeds.
- Sealants: Do not use in joints to attain waterproofing.
- Solder: Use only where specified.
- Finished zinc 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. All instructions and recommendations contained in the guidelines for specification and installation of VMZINC standing seam to be applied. Plastic film must be removed within 2 months of installation and in such a way so as not to trap water between the partially removed film and the zinc.

520 ZINC STRIP/SHEET

- Zinc-titanium-copper alloy:
 - To BS EN 501 and BS EN 988.
- Zinc manufactured following ISO 14001 (environmental management), ISO 9001 (quality management) and ISO 18001 safety management.
 - Stamped or labelled with type, finish and thickness.
 - Zinc to be coated on underside with a protective 60 micron lacquer.
- Manufacturer:
 - VMZINC, Collier House Mead Lane Hertford Herts SG13 7AX
Tel: 01992 822 288 Fax: 01992 584 460 Email: vmzinc.uk@vmzinc.com Web: www.vmzinc.co.uk
 - Product reference:
VMZINC in VMZINC PLUS in QUARTZ-ZINC.

535 INTEGRITY OF ZINC

- Requirement: Design coverings/flashings and methods of attachment to prevent loss of weather tightness and permanent deformation due to wind pressure or suction.
- Wind loads: Calculate to BS 6399-2.

555 LAYOUT

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

610 SUITABILITY OF SUBSTRATES

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

620 PREPARATION OF EXISTING TIMBER SUBSTRATES

- Remedial work: Adjust boards to level and securely fix. Punch in any protruding fasteners and plane or sand to achieve an even surface.
- Defective boards: Give notice.
- Moisture content: Not more than 22% at time of covering.

650 UNDERLAY – VMZINC Membrane

VMZ Membrane installed directly above the insulation.

- Handling: Prevent tears and punctures.
- Laying: Overlapped joints onto a dry substrate with staples (membrane is supplied with self-sealing joints).
- Overlap the VMZ Membrane by 150mm.
 - Slopes lower than 22° the overlap should be 200mm.

FIXING ZINC

710 FIXINGS FOR CLIPS

720 STANDING SEAM FIXED CLIPS

- Stainless steel.
- Fixing: Secure each clip to substrate with two fixings (205709000). Minimum of 5 fixed clips per panel. More may be required if PV panels, snow guards are being attached to the standing seam. Each clip to withstand a pulling force of 50 daN

725 STANDING SEAM SLIDING CLIPS

- Stainless steel.
 - Two piece clips with 70mm sliding movement (220002860).
- Fixing: Secure each clip to substrate with three fixings. Each clip to withstand a pulling force of 50 daN
Typical clip spacing:
Middle zone every 330mm
Edge zone 200mm
Corner zone 150mm

750 CLIPS FOR FLASHINGS/CROSS JOINTS

- Material: Zinc of same thickness as that being secured.
- Dimensions:
 - Width: Not less than 50mm.
 - Length: To suit detail.
- Fixing: Secure each clip to substrate with two fixings not more than 50mm from edge of strip/sheet being fixed.

760 CONTINUOUS CLIPS

Material: Zinc of same thickness as that being secured.

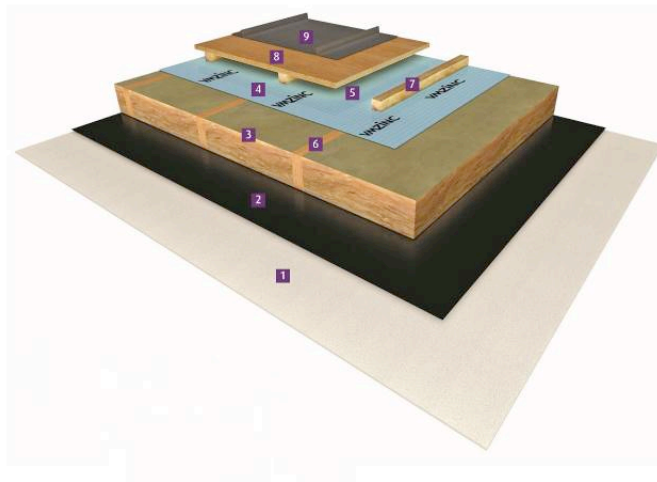
- Dimensions:
 - Width: To suit detail.
 - Length: Not more than 1.8m.
- Fixing: To substrate at 200mm centres. Welt edge of strip/sheet being fixed to continuous clip and dress down.

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.

825 SOLDERING

- All zinc must be cleaned back to its natural state.
- The protective coat on the underside of the upper panel must be removed over a width of 20mm either chemically, using DECALAQ, or mechanically, using a 3 MTM Roloc™ Bristle Disc brush mounted on a small disc sander.
- The pre-weathering must be removed from the parts to be soldered. ZINN7 (flux) to be applied to allow spot soldering with solder (40% tin 60% lead) ZINN7 applied over whole length of joint and then soldered. Wipe clean



Standing Seam on vented plywood

1. Interior finish
2. Vapour control layer
3. Insulation
4. VMZINC Membrane
5. 50mm Ventilated air space
6. Rafters
7. Battens to create 50mm ventilated air space
8. Plywood
9. VMZINC PLUS Standing Seam

IMPORTANT - All instructions and recommendations contained in the guidelines for specification and installation, published by VMZINC have to be applied.