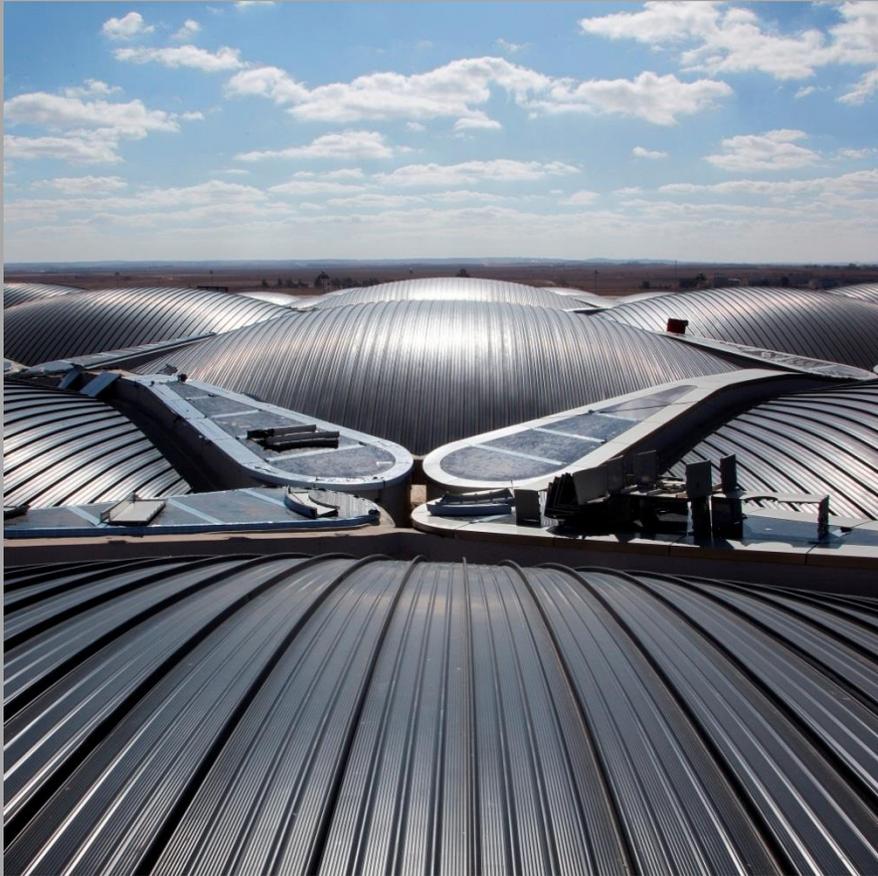


Standing Seam Systems

NBS Specification



KingZip SF Standing Seam Roofing System

Standing Seam Systems

H31 METAL PROFILED/FLAT SHEET CLADDING/COVERING

To be read with Preliminaries/General conditions.

TYPE OF CLADDING SYSTEM

140 METAL PROFILED CLADDING TO ROOF:

- Drawing reference(s):
- Supports: Galvanised Mild Steel Purlins
- Bearing width: Refer to structural Engineers drawings, a minimum bearing width suitable for KingZip SF of 60mm
- Pitch: (where applicable): Refer to Architects drawings, a min of 1.5 deg min after deflection
- External sheets: Mechanically Zipped Aluminium Secret-Fixed Standing Seam Roofing System.
- Manufacturer and reference: Kingspan Insulated Panels Manufacturing LLC
- Material:
 - Aluminium Alloy- EN AW-3004 AlMn1Mg1. Ultimate tensile strength - min 225 N/mm². 0.2% Proof stress min 200 N/mm². Modulus of elasticity - 70,000 N/mm².
 - Profile reference: KingZip SF with 65mm standing seam (400mm cover width)
 - Nominal thickness/gauge: 1.2mm
 - External Finish/Colour: High build Durabond paint finish; colour to engineer's choice from manufacturer's standard range
 - Other requirements: KingZip SF sheets to be in one length as much as possible to avoid horizontal laps
- Flashing:
 - Aluminium alloy, gauge/thickness and finish to match roof external/internal sheet as applicable
- Accessories:
 - Extruded Aluminium Alloy (EN AW-6082) 85mm Halters to galvanised mild steel purlins with stainless steel fasteners. Thickness of sub-purlin and bracket to be determined based on length of KingZip SF sheet but a minimum of 1.6mm. Thermal barrier pads to halter base
 - Extruded Aluminium Alloy Halters 85mm
 - Thermal Barrier Pads
 - Pressed Aluminium Alloy Channel Verge Cap
 - Pressed Aluminium Alloy Ridge Support
 - Ridge Closure Zed
 - Pressed Aluminium Alloy Drip Angle 60 x 30mm
 - Fabricated Aluminium Alloy (AA3004) Flashings – Material and finish as per cladding sheets or as per project requirements.
 - Side Laps: To be mechanically seamed with a KingZip SF zipping machine.
 - Primary cladding sheet fasteners: 6.3mm diameter grade 304 stainless steel self-tapping screws complete with 16mm diameter stainless steel/EPDM bonded washers – thread type and length to suit construction. Minimum 2 fixings per clip as supplied and manufactured by Kingspan Insulated Panels Manufacturing LLC
 - End laps: None required
 - Operatives must be fully trained and conversant with system manufacturer's methods for fixing and specifications.
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KingZip SF sheets to be roll-formed on site using Kingspan Insulated Panels Manufacturing LLC mobile roll-forming production unit. KingZip SF system shall be tested and certified by FM, UL, ASTM and Dubai Civil Defence, as applicable.

FIXING CLADDING

210 STRUCTURE:

- Check that structure is in a suitable state to receive cladding before commencing fixing. Subcontractor must confirm acceptance to Main Contractor and Chief Architect.

211 STRUCTURE:

- Support structure tolerances to be as per cladding manufacturer's recommendations.

215 STRUCTURE:

- Do not fix cladding until final coats of paint have been applied to outer surfaces of supporting structure.

217 PROTECTION:

- Store metal sheets and panels under cover to keep dry and prevent staining. Storage should be all in accordance with the sheet and panel manufacturer's recommendations.
- Store plastics sheets/roof-lights weather side up, under cover and on firm level bearers. Stack no higher than 1 metre and prevent mechanical damage and solar overheating.
- Adequately secure stored sheets/panels to prevent wind and mechanical damage.

219 FASTENINGS GENERALLY:

- Type(s), size(s), material(s) and finish(es) as specified, or in the absence of such specification, as recommended for the purpose by the cladding manufacturer.

221 FITTINGS AND ACCESSORIES GENERALLY:

- Cappings, closure pieces, flashings, trims, sills, gutters, fillers, spacers, tapes, sealants, fixings, etc., where not specified, to be types recommended by cladding manufacturer.

222 METAL GUTTER:

- Manufacturer: Kingspan Insulated Panels Manufacturing LLC or equal approved
- Location: As shown on drawings
- Girth: As derived from water flow calculations

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- Skins: Outer skin to be 2mm gauge aluminium sheet, conforming to alloy AA 3105 temper H44, finished with Polyester high build paint. Liner to be 0.7mm gauge galvanised steel in a Polyester painted finish. Colour for external and internal skins of gutter to match that of the roof cladding system.
- Other requirements: 5mm thick colour matched galvanized steel supports to be provided at every 500mm (maximum). Expansion joints to be provided at every 8.2 meters (maximum) using proprietary T-Pren joints. Gutter shall be supplied in maximum 3 metre lengths and joints to be site welded by Kingspan Insulated Panels Manufacturing LLC -approved welding specialist. Proprietary aluminium down spouts shall be welded to the gutter bed at site. Weld lines shall be cleaned and post painted to colour match sheets at site.

223 ISOLATING TAPE:

- A type recommended for the purpose by the cladding manufacturer. Apply to those surfaces of supports which would otherwise be in contact with cladding or accessories after fixing.

300 PROFILE FILLERS:

- Manufacturer and reference: Kingspan Insulated Panels Manufacturing LLC
- Material: Closed cell cross-linked polyethylene with a minimum density of 30 kg/m³.
- Colour: Black
- Locate where shown on drawings and wherever necessary to close off corrugation cavities from the outside and inside of the building. Ensuring a tight fit, leaving no gaps.

410 FIXING SHEETS GENERALLY:

- Cut sheets and flashings to give clean true lines, with no distortion. Remove burrs and any lubricant
- Cut openings in sheets for outlets, vent pipes, flues, etc. to the minimum size necessary and as per the cladding manufacturer's recommendations.
- For double skin construction do not line out building completely before installation of outer sheets.
- Lay sheets with exposed joints of side laps away from prevailing wind unless shown otherwise on drawings.
- Ensure that ends of sheets, and end laps are fully supported with fixings at top of lap.
- Ensure that raking cut edges at hips and valleys are fully supported.
- Drill all holes and install fasteners perpendicular to the surface of the cladding. Position fasteners at regular intervals in straight lines, centred on support bearings.
- Locate fasteners centrally within holes that are oversized.
- Remove dust and any other foreign matter before finally fixing sheets into position.
- Protect sheets adequately during fixing and up to Practical Completion against mechanical damage and disfigurement. Rectify any defects as quickly as practicable to minimise damage and nuisance.
- Install fasteners to correct tightness using any special tools recommended by the fastener manufacturer. When used, screw guns must be fitted with depth sensitive devices and used at the correct speed.
- Check fastenings on completion and adjust as necessary to ensure that they are watertight and sheeting is secure but not buckled or distorted.
- Paint all cut edges to match face finish.

411 FIXING KINGZIP SF SHEETS:

- KingZip SF sheets to be installed by mechanically seaming sheets to support clips with KingZip SF zipping machine. KingZip SF sheets to be installed as per cladding manufacturer's instructions.

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- Only roofing contractors who are members of Kingspan Insulated Panels Manufacturing LLC approved Roofing Contractors Programme should be employed to install KingZip SF roofing.
- Aluminium Site Welding: Aluminium Site Welding (TIG) will be fully in accordance with Kingspan Insulated Panels Manufacturing LLC standard recommendations and industry guide to good practice by company approved welding contractors.
- Site Welding must be carried out fully in accordance with Approved Welding Procedure Specification ASW/TIG/001 Rev 'B' 1997 as defined in BS EN ISO 9606-2 for material gauges between 0.8mm-3.0mm thickness.
- Site welding operatives must be certified to acceptable standard for material gauges between 0.8mm-3.0mm thickness.
- The weld test procedure shall be in accordance with BS EN ISO 15614-2:2005

470 STRUCTURAL MOVEMENT JOINTS:

Leave space between sheets to coincide with structural movement joints. Fix movement joint cover to sheets on one side only. Movement joint cover details to be as per cladding manufacturer's recommendations.

560 WARNING NOTICES:

- Signs as described below to be fixed at points indicated on drawings.
- Manufacturer and reference: Kingspan Insulated Panels Manufacturing LLC, KingZip SF
- Material: Aluminium
- Description: Warning sign as BS 5378: Part 3 reference A.2.4 with supplementary text sign, lettering 'DANGER Fragile roof'.
- Mandatory sign as BS 5378: Part 3 reference A.3.1 with supplementary text sign, lettering 'USE CRAWLING BOARDS'.

590 FALL ARREST SYSTEM:

- Product : Kingspan Safepro 2
- Supplier and reference: Kingspan Fabrications, Safety and Lighting Solutions, sub-division of Kingspan Insulated Panels, Greenfield Business Park No 2, Holywell, Flintshire. CH8 7GJ. United Kingdom. www.kingspanpanels.co.uk or equivalent.
- Authorized Agent: Marine Tech LLC, PO Box 283852, Dubai, UAE
Tel: +971 4 340 8624, Fax: + 971 4 3409615, Mob: +971 50 6575741
Email: fallarrest@marinetech.ae www.marinetech.ae

120 METAL ROOF ACCESS WALKWAY

- Product reference: KingZip SF Walkway with or without handrails
- Manufacturer: Kingspan Insulated Panels Manufacturing LLC, P.O. Box 60453, Dubai, UAE.
- Walkway surface: Kingspan perforated profiled sheet
Finish: Natural aluminium or powder coated
- Support members: Extruded aluminium profiles.
Fixing: Zipclip non-penetrative fixing clamp

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