



## KALZIP NBS FORMAT (H31) OUTLINE SPECIFICATION Kalzip Ribbed Liner Roof System 0.18 W/m<sup>2</sup>K U-Value



**Project Name:**  
**Reference:**  
**Specifier:**  
**Date:**

**H31 METAL PROFILED/FLAT SHEET CLADDING/COVERING**  
To be read with Preliminaries/General conditions

### 120 METAL STANDING SEAM ROOF: Kalzip Ribbed Liner Roof System 0.18 W/m<sup>2</sup>K U-Value

- Support structure: Cold rolled steel purlins at maximum 1800mm centres
- Bearing width: 58 mm minimum.
- Pitch: Minimum 1.5°
- External sheets:
- Manufacturer and reference: **Kalzip Ltd**  
Haydock Lane  
Haydock  
St.Helens  
Merseyside  
WA11 9TY  
Tel: 01942 295500  
[www.kalzip.co.uk](http://www.kalzip.co.uk)
  
- Product Reference: Kalzip Aluminium Standing Seam 65/400
- Material: Aluminium alloy BS EN AW 3004 (AlMn1Mg1)  
0.2% proof stress (R<sub>p0.2</sub>) = 185 N/mm<sup>2</sup> minimum.  
Ultimate tensile strength (R<sub>m</sub>) = 220 N/mm<sup>2</sup> minimum.
- Thickness: 0.9 mm (nominal)  
Tolerance on thickness to be +0.05 mm and -0.025 mm. This is a class 2 thickness tolerance as per BS EN 508-2:2000.
- Finish: Mill Finished Natural Stucco Embossed
- Other requirements: -----
  
- Accessories:



- Extruded Aluminium Alloy (EN AW-6063) Gable End Channel
- Extruded Aluminium Alloy (EN AW-6061) Gable End Hooks
- Extruded Aluminium Alloy (EN AW-6063) Tolerance Gable Clip Extrusion
- Extruded Aluminium Alloy (EN AW-6063) Flat Bar 22mm x 6mm
- Fabricated Aluminium Alloy (EN AW-3004), Ridge Closures (KZ 65/400)
- Extruded Aluminium Alloy (EN AW-6063) Drip Angle 40mm x 20mm
- Kalzip profile ridge fillers (KZ 65/400)
- Kalzip profile eaves fillers (KZ 65/400)
- Fabricated aluminium alloy (EN AW-3004) flashings – material and finish as per cladding sheets or as per project requirements.
- Fabricated welded soaker units - material and finish as per cladding sheets or as per project requirements.

-End laps: No end laps – single length sheets.  
-Side laps: Kalzip sheets are mechanically seamed over head of support clips with a Kalzip “zipping” machine.  
-Spacers: Support clips, steel reinforced polyamide Kalzip E-clips type E.180 with S10  
-Fasteners: 6.0 mm diameter stainless steel torque controlled fasteners, reference SDK3-S-377-6.0x45. Two fasteners per E.clip positioned diagonally opposite in the holes of the base of the clip.

**NB.** The use of curved and/or long length Kalzip sheets (e.g. over 25 m) may require a greater number or different type of fastener, please consult with Kalzip technical services for project specific guidance.

-Thermal insulation: As per clause 271.  
-Vapour control layer: As per clause 261.  
-Lining sheet: As per clause 241.

Aluminium Site Welding: Aluminium Site Welding (TIG) will be fully in accordance with Kalzip standard recommendations and industry guide to good practice by Kalzip 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 BS EN ISO 9606-2 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

**210 STRUCTURE:** Check that structure is in a suitable state to receive cladding before commencing fixing. The subcontractor must confirm acceptance to Main Contractor and C A.

**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 the supporting structure.

**217 PROTECTION:** Store metal sheets under cover to keep dry and to prevent staining. Storing should be all in accordance with the sheet and panel manufacturer's recommendations.



## 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, gutters, fillers, spacers, tapes, sealants, fixings, etc, where not specified, to be types recommended by the cladding manufacturer.

## 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.

## 241 MODULAR STEEL LINER DECK TO ROOF CLADDING

-Manufacturer and Reference: **Kalzip Ltd**  
Haydock Lane  
Haydock  
St.Helens  
Merseyside  
WA11 9TY  
Tel: 01942 295500  
[www.kalzip.co.uk](http://www.kalzip.co.uk)

-Product reference: Kalzip Ribbed Structural Liner Sheet TR35/200RS.  
-Material: Structural Grade Galvanised steel to BS EN 10326,  
-Nominal thickness: 0.7 mm  
-Finish/colour: Enamel white lining (for internal use).  
-End laps: Minimum 100 mm to coincide with purlin position.  
-Primary fasteners: 5.5 mm diameter carbon steel self drilling fasteners, reference SD-3-T15-5.5x25. One fastener to be installed in every other valley where Kalzip halter clips are not to be positioned.  
-Side lap stitching: Side laps to be stitched at maximum 400 mm centres with 4.8 mm diameter carbon steel self drilling stitching fasteners, reference SL2-T-4.8x20.  
-Side lap sealing: Not required.

## 261 VAPOUR CONTROL LAYER

-Manufacturer: **Kalzip Ltd**  
-Product reference: Kalzip VCL Clear  
-Material: Reinforced virgin polyethylene.  
-Vapour resistivity: 530 MNs/g.  
-Sealant tape: Kalzip VCL Sealant Tape. Butyl rubber tape with vapour resistivity of 900 MNs/g.  
-Size: 15 mm wide x 2 mm thick.  
-Continuity: Lay as work proceeds ensuring continuity. Lap side and end laps of vapour control layer and seal with sealant tape achieving full bond. Seal with sealant tape to perimeter and to pipes, ducts, structural members etc. which abut or pass through achieving a full bond.  
-Laps: Not less than 50 mm, seal with one row of sealant tape.  
Joints in vapour control layer to run in the same direction as the liner sheet.



- Repairs: Carefully check for tears and punctures and seal them with lapped patch of same vapour control layer material and seal with sealing tape along all edges achieving full bond.

## 271 MINERAL WOOL THERMAL INSULATION

- Standard: To BS EN 13162  
-Manufacturer: **Kalzip Ltd**  
-Product reference: Kalzip Insulation Quilt Type 3  
manufactured with ECOSE™ Technology.  
-Thickness: 200mm lightly compressed to overall thickness of 190mm to achieve maximum U-value of 0.18 W/m<sup>2</sup>K.  
-Installation: Install and secure insulation as the roofing work proceeds ensuring continuity and that all edges are closed off and no gaps are left. Joints between layers of insulation to be staggered. Keep insulation dry at all times

## 300 PROFILE FILLERS GENERALLY

- Drawing reference(s): As per Architects details.  
-Supplier: Kalzip Ltd  
-Product reference: Kalzip profiled fillers  
-Material: Closed cell cross-linked polyethylene with a minimum density of 30 kg/m<sup>3</sup>.  
-Colour: Black  
-Thickness: Minimum 30 mm  
-Installation: 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.

## 305 FIRE RESISTING PROFILE FILLERS

- Types: To accurately match sheet profile.  
-Fixing method: Adhesive recommended by profile filler manufacturer.

## 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 cladding manufacturer's recommendations.  
For double skin construction do not line out building completely before installation of the outer sheets.  
Lay sheets with exposed joints of side laps away from the prevailing wind unless shown otherwise on drawings.  
Ensure that the raking cut edges at hips and valleys are fully supported.  
Remove all drilling swarf, dust, debris and any other foreign matter before finally fixing sheets into position.  
Protect sheets adequately during fixing and up to practical completion against mechanical damage, corrosion 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.



**411 FIXING KALZIP SHEETS**

Kalzip sheets to be installed by mechanically seaming sheets to support clips with Kalzip zipping machine.

Kalzip sheets to be installed as per cladding manufacturer's instructions, British Board of Agrément Certification No. 98/3481 and Institute für Bautechnik Zulassungbescheid N R 14.1-181.

Only roofing contractors who are members of Kalzip Ltd' approved roofing contractors programme should be employed to install Kalzip roofing.

Approved roofing contractor is to provide on site fully trained personnel at a minimum ratio of 1:3. All fully trained personnel to have obtained the General Operator's Certificate and Identification Card at Kalzip Ltd' training centre.

**470 STRUCTURAL MOVEMENT JOINTS:**

Leave space between sheets to coincide with structural movement joints. Fix weathertight movement joint cover to sheets on one side only. Movement joint cover detail to be as per Kalzip Ltd recommended detail KZ-0-MISC-K-8-006.

**480 FLASHINGS/TRIMS:**

Joints in flashings and trims to be installed to fully accommodate thermal movement. Flashing joints generally to be as per cladding manufacturer's recommendations.