

BRITMET

LIGHTWEIGHT ROOFING

Product Data Sheet - Pantile 2000

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RAISING THE STANDARDS IN LIGHTWEIGHT ROOFING

Technical Specification:

Min. pitch: 5°

Max. pitch: 70°

Overall width: 1080mm

Cover width: 1040mm

Side lap: 40mm

Step: 12mm

Purlin Centres (max): 1500 (0.9mm)

Individual tile module: 300mm

Maximum sheet length: 6m (over 6m for special orders)

Steel base: 0.9mm

Weight as laid per m²: 11kg

Basecoat: Acrylic resin

Topcoat: Pigmented mineral-filled acrylic

Chemical resistance: Unaffected by normal pollution

Biological resistance: Non-toxic fungicide incorporated

Fixings: The contractor should utilise the roofing manufacturers recommended fixings and sealant

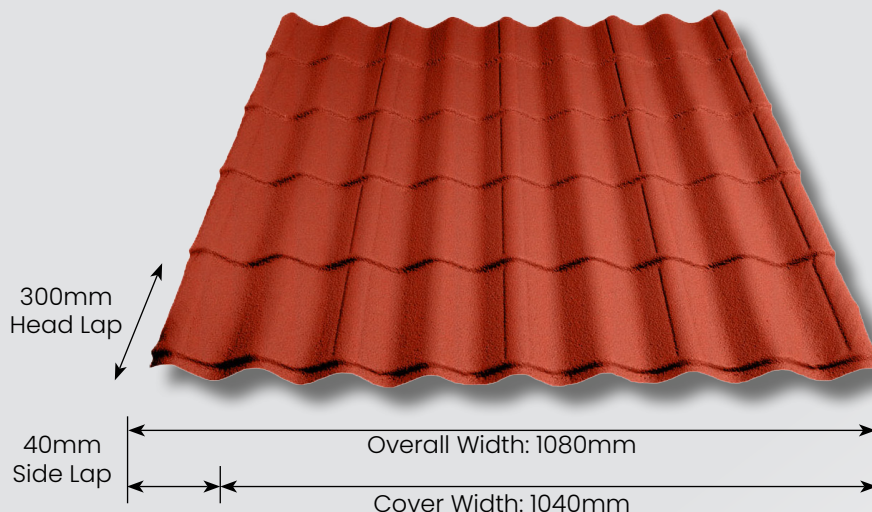
Ventilation: Roof ventilation should meet the recommendations of Building Regulations 1991 (amended '92, '94). Approved Document F2 1995 'Condensation in roofs', BS 5250: 2021 'Control of condensation'.

Materials

Pantile 2000 is manufactured using the highest grade Aluzinc steel, coated with pigmented mineral-filled acrylic.

Design

Pantile 2000 is 1080mm (width) x custom length (up to 6m). This unique tile is manufactured as a made to measure product, reducing installation time by up to half.



Approvals

- British Board of Agrément 89/2272
- Manufactured using ISO 9001 approved materials
- ISO 14001
- Fire resistance: AA classification equal to traditional roof tiles and slates

Complies with:

The Building Regulations 2000 (as amended) England and Wales.

- Requirement B3(4) Internal fire spread (structure)
- Requirement B4(2) External fire spread
- Requirement C2(b) Resistance to moisture
- Regulation 7 moisture and workmanship

The Building (Scotland) Regulations 2004

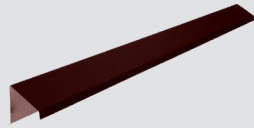
- Regulation 8 Durability, workmanship and fitness of materials
- Regulation 8(1) Durability, workmanship and fitness of materials
- Regulation 9 Building standards – construction
- Standard 2.1 Compartmentation
- Standard 2.2 Separation
- Standard 2.8 Spread from neighbouring buildings
- Standard 3.10 Precipitation
- Regulation 12 Building standards – conversions

The Building Regulations (Northern Ireland) 2000

- Regulation B2 Fitness of materials and workmanship
- Regulation C4 Resistance to ground moisture and weather
- Regulation E4 Internal fire spread – structure
- Regulation E5 External fire spread
- Ventilation systems comply with Building Regulations 1990(F2) & BS5250 (2021)



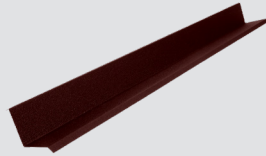
Ridge



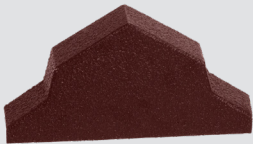
Barge/Verge



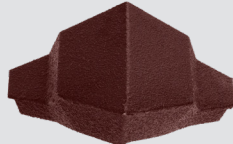
Valley



Upstand



Ridge End Cap



Hip End Cap



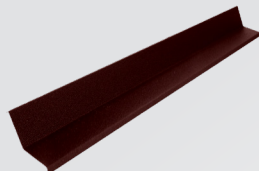
Eave Flashing



Comb Filler



Barge End Cap



Apron



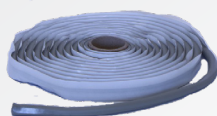
Stitching Screws



Top Fix Screws



Touch-up Kit



IDL Sealant

Recommended timber batten sizes

(roofing & vertical applications)

Rafter or Truss Spacing	Minimum Nailing Requirements	Batten Width (mm)	Batten Depth (mm)
450	1 no 75mm x 3.35mm	38	50
600	1 no 75mm x 3.35mm	50	50
900*	1 no 75mm x 4.00mm	50	50
1200*	1 no 1000 x 4.00mm	50	50
1500*	1 no 125mm x 12g screw	50	75

*underlay supports between rafters/truss to be used, (wire support or nylon type).

Recommended roofing underlay

Roofing underlay is required & should comply with recommendations of BS5534: Part 1: 2014 & BS8000	
Unsupported (roofing underlay draped over rafters or counter-batten)	Roofing underlay with BS5534:2014 Slating and tiling code of practice and BS5250:2021 Code of practice for condensation
Fully supported (roofing underlay laid directly to boarding)	Roofing underlay with BS5534:2014 Slating and tiling code of practice and BS5250:2021 Code of practice for condensation

Recommended laps for underlay

Pitch	Batten Depth (mm)		Batten Depth (mm)
	Not fully supported	Batten Width (mm)	
5° to 9°	300mm	200mm	100 - 150mm
12.5° to 14°	225mm	150mm	100 - 150mm
15° to 34°	150mm	100mm	100 - 150mm
35° & above	100mm	75mm	100 - 150mm

*Any penetrations to the underlay should be suitably sealed to prevent water ingress. Roofing underlay laps to valleys should comply with recommendations of BS5534 Part 1: 2021 section 4.2.1.6

Lengths and lapping

Thickness	Maximum Length	Maximum Span	Side Lap	End Lap 10° to 90°	End Lap 5° to 9°
0.9mm	6m	1500m	40mm	75mm	300mm

*Over 6m can be achieved for special orders

General Specification:

Handling and Storage:

Materials should be unloaded as close as possible to the building where they are going to be installed. On-site, packs should be stored on a firm, dry base away from the possibility of damage. Sheeting packs should be laid on pallets or bearers to allow ground clearance. 100mm x 50mm Bearers should be arranged at the same centres under each pack and must not exceed 2 packs high. They must slope sufficiently to allow any rainwater that may gather to drain away. A tarpaulin sheet should cover the stacks, not touching the surface of the sheets, which will allow for the circulation of air. To prevent damage to the coating on installation, the sheets must be lifted and not dragged from the pack. Damage to the surface coating can be repaired with touch up paint. (Supplied by Britmet.)

Eaves Drip Flashing:

Manufactured and coated in identical material to the main roof covering. The minimum girth of 140mm, once bent, fixed with secondary fixings and butt jointed. (Manufactured length 2m).

Underlay/Breather Membrane:

Approved roofing underlay to be laid horizontally across purlins, on top of and flush with the front edge of the Britmet eaves drip, all to the manufacturer's instructions.

Note: if the purlin centres are greater than 900mm, lattice support wires should be used to eliminate the sagging of the breather membrane.

Purlins & Rafters:

Size and centres to be designed to suit Britmet Pantile 2000 tile effect roofing sheets.

Note: for timber purlins, the Tek screw/fastener must have a min. of 38mm penetration.

Note: steel & zed purlins should be a minimum gauge of 1.25mm.

Pantile 2000 Tile Effect Roof Sheet:

All 0.9mm Pantile 2000 galvanised steel sheets are coated using a pigmented mineral-filled acrylic coating, available in 6 standard colours.

Note: All sheets MUST be laid from right to left.

Note: the first sheet must be laid so that its left-hand edge is perpendicular to the eave.

All sheets should be laid full length (ridge to eaves) where possible and securely fixed to the substructure.

Note: where an end/headlap is to be used, a roof pitch of 10° or more allows a minimum lap of 75mm on the eaves sheet. For a roof pitch of 9° or less allow a minimum lap of 300mm on the eaves sheet.

Lapping requirements: lapping is to be undertaken over supported areas only and all sheets must be mitred.

Fixings:

Main sheet fixings are to be fixed through the crown of the profile using Tek screws with a cap colour to suit. Fixings are to be placed at 3 per sheet, per purlin, except for the eaves and ridge purlins which shall be placed at 4. Side lap stitching screws are to be placed on every third tile for roof pitches of 10° or more. For roof pitches of less than 10°, they should be placed every second tile. Tek screws are supplied by Britmet. (These quantities may vary due to wind loading or other factors)

Note: for coastal areas, stainless steel Tek screws must be used.

- All holes in the sheet must be drilled (not punched).
- All cutting must be made by a 110-volt nibbler or jigsaw and must take place on the ground or away from the material already fixed.
- All on-site cutting is to be immediately treated with Firtan, an anti-corrosive material, or touch up kit, provided by Britmet.

Note: After cutting, all swarf must be removed from the roof immediately.

Ridge / Hip Flashing:

The minimum girth of 400mm, 5 times bent, butt-jointed with 50mm under strip or lapped 50mm. (Manufactured length 2m). 3 Fixings should be placed on each side. For roof pitches of 10° or below, hip details should be sealed using compriband expanding foam (B52 25mm x 10mm x 4m).

Barge / Mono Ridge Flashing:

The minimum girth of 340mm, three times bent, butt-jointed with 50mm under strip or lapped 50mm. (Manufactured length 2m) 3 Fixings should be placed on each side.

Valley Flashing:

The minimum girth of 420mm, three times bent, butt-jointed with 50mm under strip or lapped 50mm. (Manufactured length 2m) 3 Fixings should be placed on each side. For roof pitches of 10° or below, valley details should be sealed using compriband expanding foam (B52 25mm x 10mm x 4m).

Pipe Flashing:

All standard vent pipes to be finished with Dektite pipe flashing (Supplied by Britmet)

Upstand / Apron Flashing:

Upstand minimum girth is 350mm, twice bent. Apron minimum girth is 300mm, three times bent. Butt jointed with 50mm under strip or lapped 50mm. (Manufactured length 2m.) 3 Fixings should be placed on each side.

Special Flashing:

All chimneys, vents and special flashings are non-standard dimensions. Manufactured and coated in identical material to the main roof covering or as required by the client.

Flashing End Caps:

For ridge, barge and hips. Manufactured and coated in identical material to the main roof covering.

Plastic Comb Fillers: (Ridge, Eaves, Hip and Valley)

Ridge and hip should be Tek screwed to the sheet. Eaves and valley should be Tek screwed to the flashing.

Note: for roof void ventilation at the eaves, use either soffit ventilation or the over fascia ventilating system, OFVS supplied by Britmet. For duo roof pitches greater than 15° use OFVS 10. For duo roof pitches less than 15° use OFVS 25.

Sealant:

All sealant for side laps to be butyl mastic bead, code IDL 0303, grey or black.

- Pitches greater than 9° minimum mastic bead diameter 6mm
- Pitches less than 10° minimum mastic bead diameter 10mm

All work must be inspected upon completion and any damaged work should be replaced. All debris is to be completely cleared from the roof area before the removal of the scaffolding.