

BRITMET

LIGHTWEIGHT ROOFING

Product Data Sheet - Slate 2000

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RAISING THE STANDARDS IN LIGHTWEIGHT ROOFING

Technical Specification

Minimum pitch: 12°

Maximum pitch: 90°

Overall width: 1310mm

Cover width: 1250mm

Side lap: 60mm

Step: 22mm

Batten gauge: 369mm

Batten gauge (0.9mm): 367mm

Roof cover per plate: 0.46m²

Individual slate width: 250mm

Tiles per sqm: 2.17

Steel base: 0.45mm & 0.9mm

Weight as laid per m²: 7kg & 11kg

Base coat: Acrylic resin

Top coat: Stone granules with clear acrylic overglaze

Chemical resistance: Non-toxic fungicide incorporated

Biological resistance: Unaffected by normal air pollution

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

Ventilation: Roof ventilation should meet. The recommendations of Building Regulations 1991 (amended 1992 and 1994). Approved document F2 1995 'Condensation in roofs', BS5250: 2021 'control of condensation'.

Design

Slate 2000 is designed for roof pitches from 12° to 90°. Britmet Slate 2000 is 1250mm (width) x 369mm (height). This lightweight roofing panel is designed to emulate natural slates and must be fixed with a broken bond finish, in a right to left fashion.

Materials

Slate 2000 is manufactured using the highest grade Aluzinc steel, coated with a stone granule finish and a clear, acrylic overglaze.



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)

Recommended timber batten sizes (roofing & vertical applications)

Rafter or truss spacing (mm)	Minimum nailing requirements	Batten width (mm)	Batten width (mm)
450	1no 75mm x 3.35mm	38	50
600	1no 75mm x 3.35mm	50	50
900*	1no 75mm x 4.00mm	50	50
1200*	1no 100mm x 4.00mm	50	50
1500*	1no 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 and should comply with recommendations of BS5534: Part 1: 2014 & BS8000	
Unsupported (roofing underlay draped over rafters or counter-battens)	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 or sarking)	Roofing underlay with BS5534:2014 Slating and tiling code of practice and BS5250:2021 Code of practice for condensation

Estimation Chart (guide for 0.45 gauge only)

Overall roof length (m)	No. of tile panels	Rafter length to suit full course of tile incl. fascia	No. of tile panels
1.250	1	0.294 m	1
2.500	2	0.663 m	2
3.750	3	1.032 m	3
5.000	4	1.401 m	4
6.250	5	1.770 m	5
7.500	6	2.139 m	6
8.750	7	2.508 m	7
10.000	8	2.877 m	8
11.250	9	3.246 m	9
12.500	10	3.615 m	10
13.750	11	3.984 m	11
15.000	12	4.353 m	12
16.250	13	4.722 m	13
17.500	14	5.091 m	14

*for wastage on hips and valleys, allow an additional 1.32 slate per 1m.

Recommended laps for underlay

Pitch	Minimum headlap		Minimum sidelap
	Not fully supported	Fully supported	
12°	300mm	200mm	100 - 150mm
12.5°-14°	225mm	150mm	100 - 150mm
15°-34°	150mm	100mm	100 - 150mm
35°+	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: 2014 section 4.2.1.6

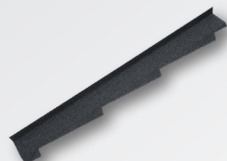
Compatible Flashings



Angle Ridge



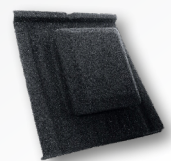
Barge/Verge



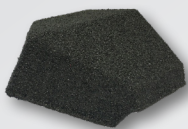
Left Hand Sidewall



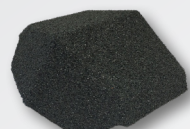
Right Hand Sidewall



Tile Vent



Hip End Cap 90°



Hip End Cap 135°



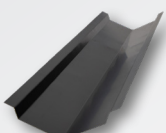
Ridge End Cap



3 Way Top Cap



5 Way Top Cap



Valley



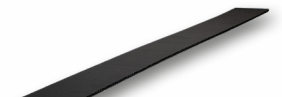
Cover Flashing



Eave Felt Carrier



Eave Vent Strip



Ridge Vent Strip

General Specification:

Slate 2000 is designed for roof pitches from 12° to 90°. Britmet Slate 2000 is 1250mm(width) x 369mm(height). This lightweight roofing slate panel is designed to emulate natural slates and must be fixed with a broken bond finish, fixed in a right to left fashion. To secure the 0.45mm Slate 2000, use 4 coloured 2.6mm x 50mm galvanised fixing nails per panel and drive through the downturned face of the slate panel; ensuring penetration through the batten is made.

Battens:

For Slate 2000, they must be laid at 369mm centres, except the eaves batten (see eaves below), and secured to the rafters using galvanised nails, (or 367mm centres for 0.9mm). Joints in battens are to meet halfway across top face of the rafters and staggered as per standard code of practice.

Please note: It is the responsibility of the installer to ensure correct batten usage.

Underlay:

Approved roofing underlay is to be laid over rafters, lapped and secured to the rafters with galvanised clout nails and carried well into the gutters. All to comply with current regulations.

Angle ridge flashing:

Two slate battens should be fitted side by side on both sides of the ridge using galvanised nails. An additional 38mm x 38mm ridge batten should be secured on top of the rearmost of the two slate battens in a position to suit the fitting of the angle ridge. The top course of slate panels can be bent and cut if necessary, using a bender and guillotine (available to hire from Britmet). The back edge of the slate panel should be turned up to form a 25-38mm upstand against the top slate batten. Each slate panel must be secured using 4 nails that are driven through the downturn nose of the slate panel and into the battens. The ridge cap should then be fitted over the top batten and nailed through the downturn of the ridge cap, into the slate panel upstand and the face of the batten using 5 nails on each side.

Angle hip flashing:

A 38mm x 38mm batten should be nailed to the slate battens on each side of the hip using galvanised nails. Slate panels can be cut and bent up against the battens, using a guillotine and bender (available to hire from Britmet). The hip caps should be fitted over the battens and nailed through the downturn into the face of the battens, using 5 nails on each side.

Roof pitches from 12° to 35°:

Felt underlay is to be cut back at the top edge allowing a continuous 12.5mm air gap on either side of the centre line of the ridge. The top course of slate panels to be bent and cut if necessary, using a bender and guillotine (available to hire from Britmet).

Eaves:

The bottom course of slate panels is to be secured with

4 coloured galvanised 2.6mm x 50mm nails driven vertically through the high point of the slate panel profile, into the fascia board, or through the eaves batten. The Eaves batten is to be placed approximately 20mm behind the fascia board if the Britmet eaves ventilation system is used. The nail heads need to be sealed using Britmet touch-up kit. The top of the fascia board or eaves vent is used, to be in line with top of the battens. Fit lay board, or tilting fillet, at the eaves, if appropriate, to ensure any moisture on the underlay drains into gutter.

Roof pitch above 15 degrees:

The top half of the fascia board is to be set 15mm below the top face of the eaves batten for the 10mm eaves vent pack. Britmet over fascia ventilators are to be fixed to the fascia board and Britmet over insulation airflow units are to be installed between rafters.

Roof pitch below 15 degrees:

The top of the fascia board should be fixed 25mm below the top face of the eaves batten allowing for Britmet 25mm eaves vent system.

Valley:

Valley can be formed from metal sheet (lead) or moulded glass fibre or similar approved lining, supported on valley boarding. Adjacent slate panels should be measured and cut, allowing a sufficient downturn, as detailed in the manufacturer's instructions. Battens to project over valley to provide fixing for slate panels.

Barge board cover:

The timber barge board should project 25mm above the top of the slate battens. A 25mm x 38mm timber batten should run parallel to the fascia board. Slate 2000 panels should be cut and bent up against the timber barge batten. The Slate 2000 scribed barge board cover must be secured using 5 fixing nails driven through the downturned edge into the barge board and 5 nails should be driven vertically into the barge batten (the heads of the vertically fixed nails need to be sealed, using Slate 2000 touch-up kit).

Sidewall flashing:

Britmet sidewall flashing must be secured with fixing nails, one driven vertically into each batten (these nails need to be covered, using Britmet touch-up kit). Britmet cover flashing should be dressed over the edge of side flashing abutting the wall and let into the brickwork.

Slate 2000 inline and soil vent:

To provide additional ventilation, Britmet inline vents are available, providing an airflow of 7,500mm². The slate underlay must be cut to allow the spigot of the slate vent to pass through and 100mm above this penetration point, an opening protector (included with slate vent) must be installed to provide full weather security. The slate vent is secured by overlapping a Britmet Slate 2000 either side and nailing through the nose of the slate panel. Nails must not penetrate the vent slate. The Britmet inline vent can also be used as a weather protected exit point for soil pipes or extractor fan ducts by means of a separately available flexi-hose and pipe adapter that connects the vent to 100mm stacks or duct work.