

General specification to be used in conjunction with Britmet Tileform 0.9mm Pantile 2000 roofing sheets.

Listed in order of fixing

HANDLING AND STORAGE

Materials should be unloaded as close as possible to the building where they are 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. Bearers at least 100mm x 50mm should be arranged at the same centres under each pack, which must not exceed 2 packs high and must slope sufficiently to allow any rainwater which penetrates to drain away. A tarpaulin should cover the stacks not touching the surface of the sheets, this allows for circulation of air.

To prevent damage to the coating on installation, the sheets must be lifted not dragged from the pack. Damage to the surface coating can be repaired with touch up paint. (Supplied by Britmet Tileform Ltd.)

1. EAVES DRIP FLASHING

Supply and fit Britmet Tileform eaves drip flashing. Manufactured and coated in identical material to main roof covering. To be a minimum girth of 140mm, once bent, fixed with secondary fixings and butt jointed. (Manufactured length – 2m)

2. UNDERLAY

Supply and fit Tyvek 2001 B pro breather membrane by Klobber or similar approved. Laid horizontally across purlins, on top of and flush with the front edge of the Britmet Tileform eaves drip, all to manufacturers instructions.

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

3. PURLINS & RAFTERS

Size and centres to be designed to suit Britmet Tileform roofing sheets.

*Note: for timber purlins – the Tek fastener must have a min. of 38mm penetration.
Note: steel & zed purlins – should be a min. gauge of 1.25mm.*

4. ROOF COVERING

All roof sheets to be manufactured by Britmet Tileform Limited.

All 0.9mm Pantile galvanised steel sheets are coated using a pigmented mineral filled acrylic coating, available in six 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/head lap is to be used, for a roof pitch of 10° or more – allow 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 to be undertaken over supported areas only and all sheets must be mitred.

5. FIXINGS

5a Main sheet fixings. To be fixed through the crown of the profile using Tek screws, cap colour to suit.

Fixings to be placed at 3no. per sheet, per purlin, with the exception of the eaves and ridge purlins which shall be placed at 4no.

5b Side lap stitching.

Stitching screws to be placed 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 supplied by Britmet Tileform Limited. (These quantities may vary due to wind loading or other factors)

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

6. FIXING

All holes in the sheet must be drilled (not punched).

All cutting must be made by a 110-volt nibbler or jigsaw, and take place on the ground or away from the material already fixed.

All on site cutting to be immediately treated with Firtan, an anti-corrosive material, or touch up kit, provided by roof sheet manufacturer.

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

7. RIDGE / HIP FLASHING

To be manufactured and coated in identical material to main roof covering. Minimum girth of 400mm, five times bent, butt jointed with 50mm understrip or lapped 50mm. (Manufactured length – 2m).

Fixings to be placed at 3no. per side.

For roof pitches of 10° or below, hip details should be sealed using compriband expanding foam (B52 25mm x 10mm x 4m).

8. BARGE / MONO RIDGE FLASHING

To be manufactured and coated in identical material to main roof covering. Minimum girth of 340mm, three times bent, butt jointed with 50mm understrip or lapped 50mm.

Manufactured length – 2m

Fixings to be placed at 3no. per side.

9. VALLEY FLASHING

To be manufactured and coated in identical material to main roof covering. Minimum girth of 420mm, three times bent, butt jointed with 50mm understrip or lapped 50mm.

Manufactured length – 2m

Fixings to be placed at 3no. per side.

For roof pitches of 10° or below, valley details should be sealed using compriband expanding foam (B52 25mm x 10mm x 4m).

10. PIPE FLASHING

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

11. UPSTAND / APRON FLASHING

Manufactured and coated in identical material to main roof covering. Upstand – minimum girth 350mm, twice bent Apron – minimum girth 300mm, three times bent Butt jointed with 50mm understrip or lapped 50mm.

Manufactured length – 2m.

Fixings to be placed at 3no. per side.

12. SPECIAL FLASHING

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

13. FLASHING END CAPS

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

14. PLASTIC COMB FILLERS: RIDGE, EAVES, HIP AND VALLEY

For ridge and hip details, to be Tek screwed to the sheet.

For eaves and valley details, to be Tek screwed to flashing.

Supplied by Britmet Tileform Ltd.

Note: for roof void ventilation at the eaves, use either soffit ventilation or the over fascia ventilating system, OFVS supplied by Britmet Tileform Limited.

For duo roof pitches greater than 15° – OFVS 10

For duo roof pitches less than 15° – OFVS 25

15. 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

Supplied by Britmet Tileform Limited.

16. COMPLETION

All work to be inspected upon completion and any damaged work to be replaced.

All debris to be completely cleared from the roof area prior to the removal of the scaffolding.

Please note: This information is to be used as a guide only. It assumes that the structure of the existing building is in accordance with the building practice.

At your request a custom specification can be written for your individual project. Please contact our technical department at the address shown below.



PANTILE 2000

Manufacturers of light weight roofing systems

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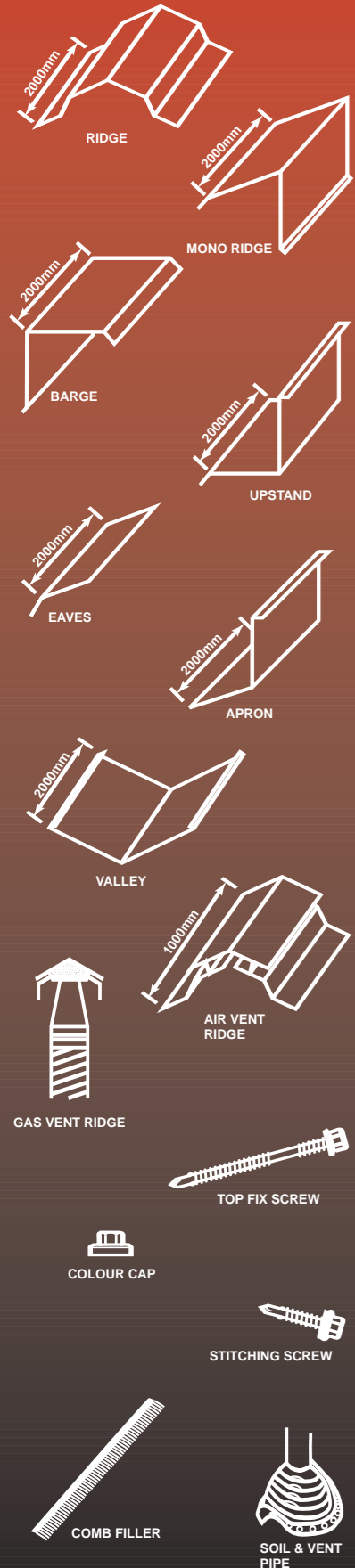
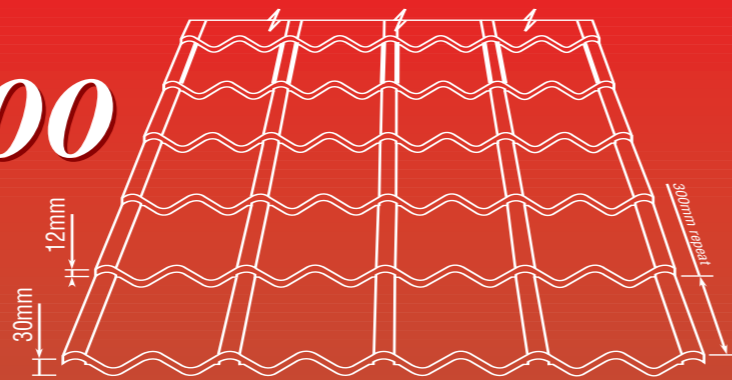
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BRITMET TILEFORM LIMITED

PANTILE 2000



ADVANTAGES

- Designed to give a traditional tile appearance.
- Lightweight.
- Minimum pitch 5°.
- Good vandal resistance (0.9mm – steel base).
- Easy to handle.
- Offers reduced structure.
- Quick installation.
- Less labour intensive.
- Cost effective.
- Virtually maintenance free.
- Extensive range of accessories and flashings available.
- Fully dry-fixed.
- Guaranteed for 30-years against weather penetration.
- Full technical support available.

TECHNICAL DATA

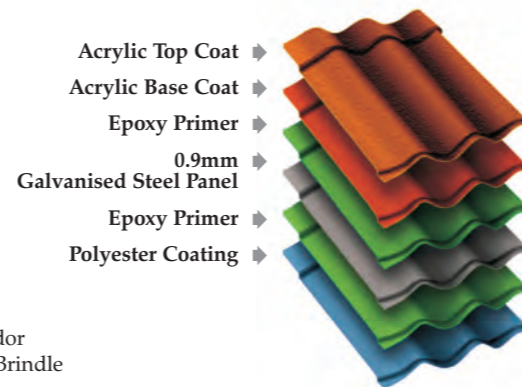
- Min. pitch:** 5°
- Max. pitch:** 90°
- Overall width:** 1080mm
- Cover width:** 1040mm
- Side lap:** 40mm
- Step:** 12mm
- Purlin Centres (max):** 1500mm
- Individual tile module:** 300mm
- Maximum sheet length:** 6 m (over 6m for special orders)
- Steel base:** 0.9mm
- Weight as laid per m²:** 11kg
- Base coat:** Acrylic resin.
- Top coat:** Pigmented mineral filled acrylic.
- Colours available:** Charcoal, Terracotta, Mid Grey, Tudor Brown, Antique Red, Sage Green. Brindle available on request.
- Chemical resistance:** Unaffected by normal pollution.
- Biological resistance:** Non toxic fungicide incorporated.
- Fire resistance:** AA classification equal to traditional roof tiles and slates.
- Fixings:** The contractor shall utilise the roofing manufacturers recommended fixings and sealant.
- Ventilation:** Roof ventilation should meet recommendations of Building Regulations 1991 (amended '92, '94). Approved Document F2 1995 'Condensation in roofs', BS 5250: 1989 'Control of condensation'.



Pantile 2000 ridge to eaves sheets are BBA approved for roof pitches as low as 5 degrees.



The rigidity of the Pantile 2000 lightweight sheets permit direct fixing to reinforced concrete purlins with no additional support required.



SUITABLE FOR THE FOLLOWING TYPES OF PROJECTS

- Converting flat roofs to pitched.
- Non traditional/traditional housing.
- Pre-fabricated buildings.
- Holiday centre accommodation.
- Community Centres.
- Re-roofing of schools/prisons.
- Over-roofing of asbestos/felt/industrial sheeting.

APPROVALS

British Board of Agrément certificate number. 89/2272.
Manufactured using ISO 9001 approved materials.



The Pantile 2000 fast-track roofing system considerably reduces time on site, keeping disturbance to a minimum.



As well as providing individually tailored sheet lengths to suit each project. Britmet Tileform can provide special flashings for application requirements.



The Pantile 2000 ridge to eaves sheets can be fixed to a steel/timber sub-structure, as in this flat to pitched roof conversion.

Complies with:

The Building Regulations 2000 (as amended) England & 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 (1989)



TABLE 1

RECOMMENDED TIMBER BATTEN SIZES (roofing & vertical applications)

Rafter or truss spacing (mm)	Minimum nailing requirements	Batten Width mm	Batten Depth mm
450	1 no 75mm x 3.35mm	38	38
600	1 no 75mm x 3.35mm	50	38
900*	1 no 100mm x 4.00mm	50	50
1200*	1 no 100mm 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 tape).

TABLE 2

RECOMMENDED ROOFING UNDERLAY

Roofing underlay is required & should comply with recommendation's of BS 5534: Part 1: 1997 & BS 8000	
Unsupported (roofing underlay draped over rafters or counter-battens)	Roofing underlay should comply with BS747 type 1F or 5U
Fully supported (roofing underlay laid directly to boarding or sarking)	Roofing underlay should comply with recommendation's of BS5534: Part 1: 1997 section 2.10.2 and vapour transmission tested in accordance with BS 3177 (n.b. good quality BS 747 type 1F underlay comply with this test)

TABLE 3

RECOMMENDED LAPS FOR UNDERLAY

Pitch	Minimum headlap		Minimum Sidelap
	Not fully Supported	Fully Supported	
5° to 9°	300mm	200mm	100 - 150mm
12½° to 14°	225mm	150mm	100 - 150mm
15° to 34°	150mm	100mm	100 - 150mm
35° & above	100mm	75mm	100 - 150mm

NB. Any penetrations to the underlay should be suitably sealed to prevent water ingress. Roofing underlay laps to valleys should comply with recommendations of BS 5534: Part 1:1997 section 4.2.1.6

TABLE 4

LENGTHS & LAPPING

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

Over 6m can be achieved for special orders

Britmet Tileform has one of the widest ranges of lightweight Tile/Slate effect roofing systems available on the market today. To view our up-to-date product information, please visit our web-site.

Offers instant access to: Performance properties, full range of product applications photographs, product information, specifications, technical drawing library (CAD & .BMP format) and much more.