ULTRATILE®

UltraTile panels roof pitches from 10° to 90°.

UltraTile lightweight roofing tiles, to be supplied by Britmet Tileform Ltd. Each tile must be secured using four no. coloured, 2.6mm x 50mm galvanised fixing nails, driven through the downturned nose of the tile into the face of the battens, (for 0.9mm UltraTile, a coloured Tex screw can be used – part no: ASF2 – 00E55).

BATTENS

Treated tiling battens of approved quality (e.g. tanalised), of suitable section, (see the UltraTile estimating chart) to be laid at 365mm centres, (for 0.45mm thick) or 363mm centres (for 0.9mm thick), except the eaves batten (see eaves section), and secured to the rafters using galvanised nails. Joints in the battens should be staggered and meet half way across the top of the rafters, as standard code of practice.

UNDERLAY

Approved reinforced felt, BS747 (type 1F) to be laid over rafters, lapped and secured to the rafters with galvanised clout nails and carried well into gutters. All to comply with current regulations.

ANGLE RIDGE FLASHING

Two tile battens to be fitted side by side on both sides of the ridge, using galvanised nails. An additional 50mm x 50mm batten to be secured on top of the rearmost of the two tile battens in a position to suit the fitting of the UltraTile angle ridge.

If necessary, the top course of tiles to be cut and bent using a guillotine and bender (available from Britmet Tileform Ltd). The rear edge of the tile is to be turned up to form a 25mm to 38mm upstand against the top tile batten. Each tile must be secured using four nails driven through the downturn as previously described.

The angle ridge flashing is to be fitted over the top batten and nailed through the downturn of the ridge into the tile upstand and face of the batten, using five nails on each side.

ANGLE RIDGE (VENTILATED) ROOF PITCHES FROM 10° TO 35°

Felt underlay to be cut back allowing a continuous 12.5mm air gap on either side of the centre line of the ridge.

If necessary, the top course of tiles to be cut and bent using a guillotine and bender (available from Britmet Tileform Ltd). Each tile to be secured using four fixing nails driven through the downturn nose of the tile into the battens. A batten, not exceeding 50mm x 50mm to be fitted on the universal vent piece, (supplied by Britmet Tileform Ltd) and secured through the tile into the battens on the underside, using 75mm galvanised nails.

The ridge flashing to be fitted over the batten and nailed through the downturn into the face of the batten using five nails on each side.

ANGLE HIP FLASHING

A 38mm x 38mm hip batten to be nailed to the tile battens on each side of the hip rafter, using galvanised nails.

Tiles to be cut and bent to form a 25mm – 35mm upstand against the hip battens, using a guillotine and bender (available from Britmet Tileform Ltd).

The hip flashing is to be fitted over the battens and nailed through the downturn, into the face of the battens using five nails on each side.

EAVES

The bottom course of tiles to be secured using four no. coloured, 2.6mm x 50mm galvanised fixing nails driven vertically through the tile, as near to the high point of the tile profile as possible and into the fascia board, or through the eaves batten placed approximately 20mm behind the fascia board if the UltraTile eaves ventilation system is used. These nail heads to be sealed using the UltraTile finishing kit.

The top of the fascia board or eaves vent, if used, to be in line with top of 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°
The top of the fascia board should be fixed 23mm below the top face of the eaves batten allowing for the UltraTile, 10mm eaves vent system.

Roof pitch below 15°
The top of the fascia board should be fixed 25mm below the top face of the eaves batten allowing for the UltraTile, 25mm eaves vent system. Note: Where the insulation follows the roof slope, the UltraTile ventilation tray should be installed between the rafters.

VALLEY

The valley should be formed from lead, moulded glass fibre or similar approved lining, supported on valley boards.

Tile battens should project over the valley to provide fixing for the tiles.

UltraTile panels to be measured, cut and bent, using the guillotine and bender (available from Britmet Tileform Ltd), allowing sufficient downturn into the valley.

BARGE BOARD COVER

The timber barge board should project 25mm above the top of the tile battens. A 50mm x 50mm timber batten to run parallel to the fascia board. UltraTile panels should be cut and bent up against the timber barge batten.

The UltraTile scribed barge board cover to be secured using 5 fixing nails driven through the downturned edge into the barge board and five nails to be driven vertically into the barge batten (the heads of the vertically fixed nails to be sealed, using the UltraTile finishing kit).

SIDE WALL FLASHING

UltraTile scribed side-wall flashing to be secured using fixing nails, one driven vertically into each batten (these nail heads to be covered, using the UltraTile finishing kit).

UltraTile cover flashing to be dressed over the vertical section of the side wall flashing and be dressed into the brickwork.

ULTRATILE INLINE TILE AND SOIL VENT

To provide additional ventilation, the UltraTile inline tile vents are available providing an airflow of 7,500mm^2.

The tile underlay must be cut to allow the spigot of the tile vent to pass through. The UltraTile panel vent is installed to provide full weather security. The tile vent is secured by overlapping an UltraTile panel on either side and nailing through the nose of the tile, as previously described. Nails must not penetrate the vent tile.

The UltraTile inline vent tile can also be used as a weather protected exit point for soil pipes or extractor fan ducts by means of a flexi hose and pipe adapter that connects the vent to 100mm stacts or duct work.

ULTRATILE GAS FLUE RIDGE TERMINAL

Available to suit angle ridge. Type (R) adapter and extension piece supplied by others.

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.

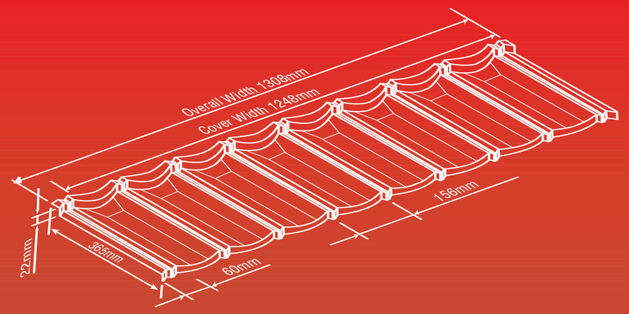
At your request a custom specification can be written for your individual project. Please contact our technical department at the address shown below.

July 2010
Uniclass
L522:P4
CI/SfB (47) Nh2

ULTRATILE

BRITMET TILEFORM LIMITED

ULTRATILE

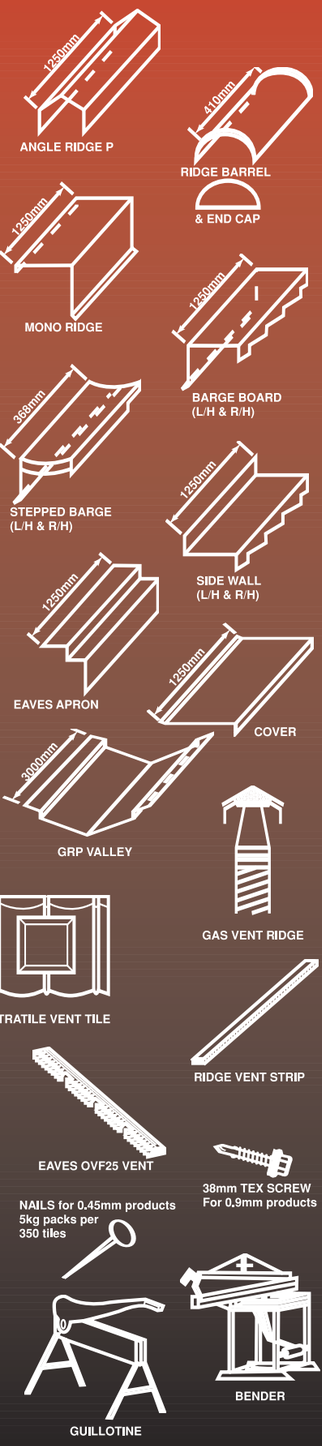


SUITABLE FOR THE FOLLOWING TYPES OF PROJECTS

- 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.

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)



ADVANTAGES

- Designed to give a traditional tile appearance.
- Lightweight.
- Minimum pitch 10°.
- 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.

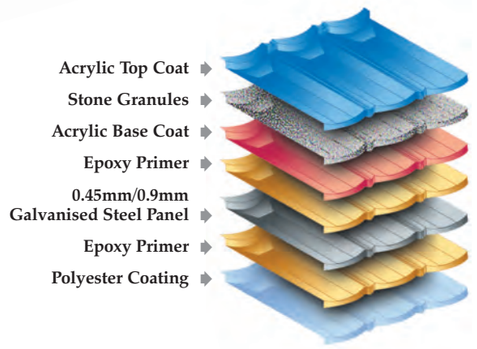
TECHNICAL DATA

Min. pitch:	10°
Max. pitch:	90°
Overall width:	1308mm
Cover width:	1248mm
Side lap:	60mm
Step:	22mm
Batten gauge (0.45mm):	365mm
Batten gauge (0.9mm):	363mm
Individual tile width:	156mm
Roof cover per tile panel:	0.46m²
Slate panels per m²:	2.18
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.
Colours available:	Titanium grey, Bramble Brown, Tartan Green, Rustic Terracotta. 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'.

The 0.9mm UltraTile, is particularly well suited in areas where security is of concern or where vandalism is commonplace.

0.45mm Ultratile on a 3000m² Flat to Pitch project in Walsall.

Unlike traditional tiles, the UltraTile can be used on roof pitches as low as 10° as well as for vertical hanging.



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.

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	25
600	1 no 75mm x 3.35mm	50	25
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	
10° to 12°	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

CALCULATION CHART (estimating guide for 0.45 only)

Chart below allows for a 25mm fascia and 20mm to the first batten.

Overall Roof Length (m)	N° of Tile Panels	Rafter Length to suit full courses of tile inc. facia	Number of Tiles Required
1.248	1	0.290	1
2.496	2	0.665	2
3.744	3	1.020	3
4.992	4	1.385	4
6.240	5	1.950	5
7.488	6	2.115	6
8.736	7	2.480	7
9.984	8	2.845	8
11.232	9	3.210	9
12.480	10	3.575	10
13.728	11	3.940	11
14.976	12	4.305	12
16.224	13	4.670	13
17.472	14	5.035	14

For wastage on Hips & Valleys, allow an additional 1.32 tiles per lm