



CS Coelho da Silva Plasma clay tiles fitting specifications and guidelines.

Roof pitch minimum & maximum	10° to 90° vertical façade & cladding
Batten centres	385 mm for 12.5°-90° pitches - 365 mm for 10°-12.5°
Plasma tile dimensions	487 mm x 251 mm (incl 30mm interlocking section)
12.5° up to 90° roofing & cladding	12.5 tiles per m ² @ 385 mm batten gauge.
10° roof pitch with increased head lap	13.4 tiles per m ² @ 365 mm batten gauge.
Maximum rafter length at 12.5° and 10° pitched roofs in sheltered areas. Sheltered area 12.5 tiles / m ² Sheltered area 13.4 tiles / m ²	For extreme areas please consult. For longer rafter lengths consult. 6.5 metres long at 12.5° pitch. 6.0 metres long at 10° pitch.
Weight as laid	50 kg per m ² or 53Kg per m ² 13.4 tiles per m ²
Weight per tile and per full pallet	4Kg and 976Kg
Quantity per pallet	240 tiles per pallet.
Quantity per bundle	6 tiles per strapped bundle
Packing	2 rows of 30 tiles by 4 layers per pallet.
Battens per m ²	2.6 linear metres (2.7 linear metres 10° - 12.5° pitches)
Batten size	50mm x 25mm up to 600mm centres
Batten size	38mm x 25mm up to 400mm centres
Screw size / type for tiles and clips for pitches below 20°. 20° and over copper/stainless nails or screws.	10° - 25° use our tile hooks, NO nails or screws to be used. 25° and over, tile hooks or copper nails, aluminium nails, stainless steel nails or screws can be used.

Counter battens and battens are required as is the case with all nibbed tiles, therefore counter batten and batten all boarded roofs.

Maximum rafter length is fully dependent on site location, roof pitch and head lap, therefore contact us for confirmation.

Plasma tiles can be fitted straight or broken bond. It is a question of aesthetics as there is no significant difference in functional terms. All the Plasma tiles come prepared with pre-punched holes for fixing to the support structure with self-drilling screws or nails for fixing on pitches over 20°.

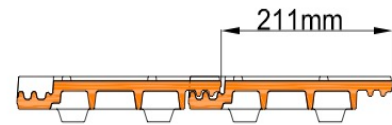
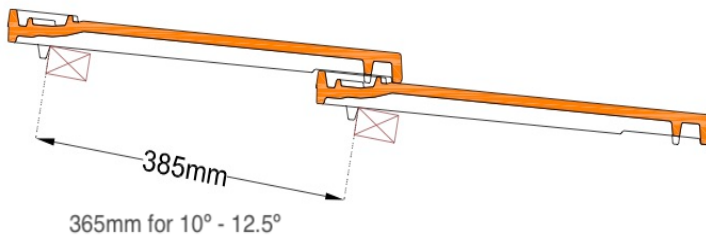
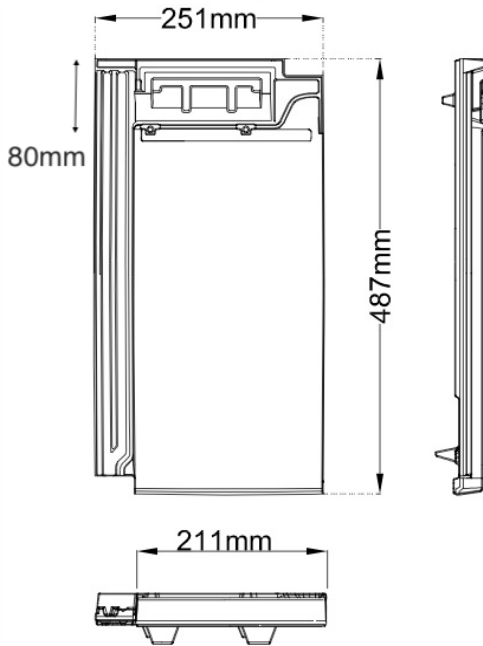
- Pitches between 10° and 45° as per BS5534 regulations, fix all tiles paying special attention to ALL periphery tiles including around chimneys, roof windows, vent tiles, top courses.
- Pitches between 70° and 90° vertical cladding facades it is compulsory to fix in both pre-punched holes and an auxiliary clip which is secured by one of the two screw fixings in the pre punched holes on the tiles.
- All verge and eaves tiles must be secured at two points, screwed twice or screwed and clipped. When using screws, ensure sealing washers are used on pitches below 25°

Continued overleaf.



ICONIC SLATE LTD - GALEX

CLAY ROOFING & CLADDING PRODUCTS



When using screws (we don't recommend nails as the holes are recessed and you may damage the tile if the hammer hits the tile) to secure the tiles on pitches below 20° we strongly recommend using our tile hooks.
IF you must screw fix, then it is the installers responsibility to seal the screw holes used with our propriety closed cell neoprene washer or a sealant or purchase screws with their own rubber sealing washer. We can supply closed cell neoprene sealing washers.

We suggest using our proprietary verge and cloak tiles for the perfect aesthetic and water tight finish as well as aesthetically the finished roof looks precise, clean and perfectly finished.

Hip and Ridge tiles; recommend using our CS Plasma PL1 for pitches 10° to 30°, for roof pitches over 30° you can use the PL2 plain legged universal ridge system or the CR2 capped universal ridge system, all three options are mechanically fixed thereby meeting the necessary BS5534 new regulations.

We do not recommend the use of only mortar to fix any roofing material including clay tiles, by law a mechanical fixing is required, however if you want to mortar bed our ridge tiles you can certainly do so IN CONJUNCTION with the stainless steel fixing screws supplied with the ridge tiles, in doing so you achieve your desired aesthetics as well as complying fully with current regulations.

Venting our ridge tiles is as straightforward as it can possibly be, simply install a roll out ridge roll beneath our ridge tiles, continue to install our ridge tiles as usual (a single stainless steel screw and the aluminium clip supplied with the ridge PL1 or PL2 ridge tiles or two stainless steel screws with our CR2 Capped ridge tiles) and that is all that is needed, no mortar and no plastic butting joints.

Continued overleaf



As per British Standards regulations and fixing guides an appropriate waterproof breathable membrane, or a bitumen felt reinforced with fibres must be used and fixed in accordance with the manufacturer's instructions for the specific roof pitch in question.

Prior to fitting the battens, the roofer should inspect each and every one to ensure they meet with current BS requirements, specially where the roofer is likely to walk upon the roof surface and more so on lower pitches which will be subjected to greater stresses.

Setting out the centre of the first / eaves batten should be at 405 mm from the centre of the gutter (where fitted) to ensure the flow of rain water to the gutter if fitted or away from the buildings wall (in the event of no gutters being installed).

You will see that our CS Plasma tiles have a drip edge on the bottom edge of the tile.

Subsequent battens must be 385mm (365mm in the case of 10° - 12° roof pitches) centres commencing from that first batten.

Head of the tile must NOT be cut on low pitches, doing so removes the water barriers at the top of the tile and interlocking channel and will allow water to filter in to the roof space.

The top row / course of tiles can have its overlap increased (to avoid having to cut any tiles) simply by cutting the underside nibs. In cases where the overlap is too great to be taken up by a single course, one can repeat the removal of the nibs for two courses.

This last course should have the head of the tile snug up to the ridge board (but not touching) leaving approximately 1cm clearance.

The membrane should be tacked on to the side of the ridge board without restricting any possible venting abilities of the specific roof design.

The PL1, PL2 and CR2 ridge tiles form part of the Plasma range by CS therefore designed to fit perfectly with the Plasma roof tiles and indeed any other roof tile or natural slate.

Although the CS Plasma is probably one of the most uniform clay tiles in the market due to its production method, all clay tiles are subject to small variations in size brought about by the drying and firing shrinkage during the manufacturing process. Our tiles are fired to 1,020 °C which is the optimum temperature required to produce clay tiles with a very high resistance to frost damage therefore perfectly suited to the UK as well as far harsher climates. The technical properties of the Plasma range are comparable with those of Class A Engineering bricks.

All the colours on the Plasma range of tiles and ridge tiles are fired in, therefore will not flake, bubble or scrape off in normal use or fitting.

CS Plasma tiles and its accessories are all covered by a 35 year manufacturers guarantee, this guarantee period includes the colour of the products as well as their integrity.

CS Coelho da Silva clay tiles comply with the most recent parameters of current EN requirements. Please feel free to request copies of the relevant certification.

Tile Fixing:

CS Plasma clay tiles must be laid and fixed to in accordance to and comply with BS 5534: the British Standard Code of practice for slating and tiling, and BS 8000: Part 6: the British Standard Code of practice for workmanship on building sites.

For further guidance please do not hesitate to contact our office.
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