

Sahtas clay plain tiles installation guide – general setting out and tiling

Introduction

The following installation guide is for Sahtas clay plain tiles. The architect and roofing contractor should design and install the roof in compliance with BS 5534: the British Standard Code of Practice for Slating and tiling. Also, local conditions and current good practice should be considered.

All work on site should be carried out in accordance with BS 8000-6: the British Standard Code of Practice for Workmanship on building sites. Materials, prior to use, should be checked that they conform to the project specification.

Handling and storage

Sahtas clay tiles are supplied in wooden crates with shrink wrap hoods and should be unloaded and handled with care to avoid damage. Tiles and fittings should be stored as close to the work area as possible to avoid excessive handling, on a flat, firm surface, free from soiling and away from the risk of damage from passing traffic.

Stacking on the roof

Tiles and fittings should be stacked out safely to avoid slippage and evenly distributed so as not to overload any of the roof structure.

Underlay and tile battens

Guidance on the installation of underlay and tile battens is given in the Sahtas installation guides for underlay and battens.

Roof ventilation

Guidance on roof ventilation is given in the Sahtas guide '*Controlling roofspace condensation*'.

Tile gauge

Sahtas clay plain tiles should be fixed at a maximum gauge of 100mm, with a minimum headlap of 65mm.

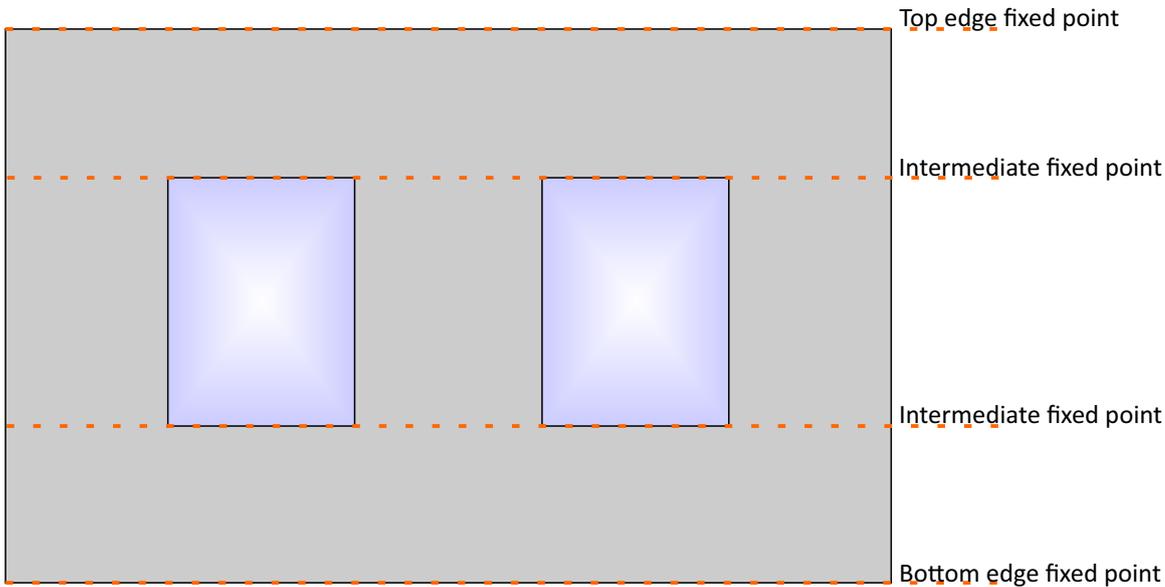
Setting out from eaves to ridge

Set the position of the first full tile batten at eaves so that the eaves tiles overhang the fascia board, tilting fillet or wall face by no less than 50mm when measured on the rake. Set the under-eaves course batten so that the under-eaves tiles overhang by the same distance as the first course tiles.

Set the position of the last batten so that the ridge tiles overlap the top course of full tiles by at least 65mm. Fix an extra batten above the top course batten for the course of tops tiles, allowing a sufficient gap for the tile nibs.

The eaves course and top course battens are 'fixed points' from which the general tiling gauge can be determined.

Before setting the final tiling gauge between eaves and ridge, consider any other 'fixed points' such as roof windows. At a roof window lower edge, set the last batten so that tops tiles just fit under the window upstand. Then set the position of the last full tile course batten below the tops tiles batten, allowing enough space for the tile nibs (see drawing).



To determine the tiling gauge between the eaves batten and the first fixed point batten, divide the distance by 100mm. Round up the answer to the nearest whole number, then divide by the distance; this gives the actual tiling gauge. If the distance between the fixed points is less than 450mm, it may not be possible to set a suitable batten gauge. In this case, set the gauge at 100mm, finishing as close as possible to the window upstand, then increase the length of the window flashing to ensure sufficient coverage over the top tile course.

Similarly, determine the next fixed point; for example, the top edge of the roof window. Set a batten so that a course of full tiles and under-eaves tiles oversails the window top edge gutter. Then, follow the procedure above to determine the batten gauge between the bottom and top edges of the roof window. If this distance is too short to set out to full courses, then set the tiling gauge at 100mm and cut the first courses directly above the roof window, but ensuring the tiling oversails the window gutter by the correct distance.

Then, follow the procedure above to set out the tiling between the last fixed point and the ridge batten.

Setting out across the roof

When tiling from verge to verge, establish an equal tile overhang dimension over the outer wall.

Lay a course of tiles along the eaves, setting the tiles at their average linear coverage. At this stage and before any tiles are fixed, some adjustment can be made, if necessary, to allow a suitable overhang at verges.

Mark the position along the eaves and top battens of every third tile. Then strike a chalk line from eaves to ridge at each mark. Tiles should be laid to these marks to keep the perpendicular lines straight.

Tile installation generally

Load out all sides of the roof uniformly, randomly mixing tiles from at least three pallets.

Sahtas clay plain tiles are laid cross-bonded, starting at the right-hand side of the roof plane and working towards the left, with slight gaps of up to 3mm between each tile. Make sure that every third tile is positioned to the chalk line.

Alternatively, for a more random appearance, simply lay the tiles without marking out perpendiculars, but ensuring each linear tile joint falls within the middle third of the tile below. If the joints drift away from the middle third, cut a tile-and-half tile to bring the bond back in line.

For tiling to a curved roof, see the '*Sahtas installation guide for curved roofs*'.

Minimum tile fixings

For roof pitches below 60 degrees, each tile in every fifth course should be twice nailed using 38 x 3.35mm alloy clout head nails. For roof pitches of 60 degrees and above, all tiles must be twice nailed. Nails should be driven fully home.

At verges and side abutments, and at each side of valleys and hips, the end tile in every course should be twice nailed. When cutting tiles to valleys and hips, use tile-and-half tiles to ensure cuts are as large as possible and can be twice fixed. When using hip and valley tiles, use tile-and-half tiles to maintain minimum bond.

At eaves and top edges, two courses of tiles (consisting of under-eaves course and first full tile course at eaves, last full tile course and tops tile course at ridge or top edge) should be twice nailed.

For each project, obtain a written, calculated fixing specification from Sahtas to determine if the above minimum fixings are adequate or if extra fixings are required.

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Sahtas reserves the right to change products and specifications without notice. Please contact us for the latest information.

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Page 3