

# Fixing tiling battens to masonry

(May 2024) (Second issue – supersedes October 2018)

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## Question

What type of fixings should be used for fixing battens to vertical tile hanging on external masonry walls?

## Considerations

- Battens supporting vertical tile hanging have to support the weight of the tiling and resist any wind loads which cause pull-out forces on the fixings.
- BS 5534 'slating and tiling for pitched roofs and vertical cladding' gives guidance on calculating wind loads and suggests types of fixings for battens into masonry.
- Brick and block manufacturers often provide pull-out resistance forces for various types of fixing into each of their brick/block types.

## Answer

BS 5534 says 'battens and counter battens fixed to masonry should be plugged or shot-fired with connections of proven adequate pull-out resistance. Cut nails driven into masonry should only be used when loaded in shear and not when loaded in withdrawal'.

Cut nails are therefore unsuitable for fixing vertical tile hanging battens into masonry due to horizontal withdrawal forces due to wind action.

The battens should be fixed using proprietary fixings which have been selected to resist the weight of the tiling and calculated wind loads. The selection should be made with reference to the withdrawal forces for the fixings as quoted by the fixings manufacturer or the block/brick manufacturer.

Fixings should be corrosion resistant suitable for the external environment.



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