



## **Specification details for laying Russell Roof Tiles at a lower pitch than the manufacturer's recommended minimum**

In order to lay Russell Roof Tiles below the recommended roof pitch and still maintain a weatherproof roof, it is necessary to improve the structure beneath the tiling to include the following :

1. Lay 12.5mm exterior quality plywood boarding onto rafters.

Fix two layers of built up felt roofing system as specified below :

- a) One layer of partially bonded 3B glass fibre base layer, using 115/15 grade bitumen.  
One layer of fully bonded 3B glass fibre felt, fixed using 115/15 grade bitumen, mechanically fixed at the head.
  - b) One layer of partially bonded 2mm torch- on base layer.  
One layer of fully bonded 4mm torch- on felt, mechanically fixed at the head.
2. Secure 38mm x 19mm softwood timber counter battens to given rafter centres over the two layer felt system, and over lay one layer of high performance reinforced roofing felt as with standard practice.
    - a) Fix 38mm x 25mm softwood tiling battens for Plain Tiling to 90mm maximum gauge to provide the minimum headlap of 75mm.
    - b) Fix 38mm x 25mm softwood tiling battens (for rafter centres at max 450mm) or 50mm x 25mm softwood tiling battens (for rafter centres are at 600mm) for Interlocking tiling to provide not less than a minimum 125 mm headlap (max 150 mm headlap) when fixed to the maximum gauge for the tile.

With interlocking tiles the maximum pitch should be not more than 2.5° less than the normal recommended pitch for the tile and the headlap must be a minimum 125 mm.

The minimum fixing for every tile is a clip fixing and twice ring shank nailed through the nail holes unless otherwise specified by Russell technical in which case it must be confirmed with Russell Technical at the outset before commencing any work on site.

With Plain Tiling the pitch must not be less than 30° and they should be twice nailed each tile in every third course and five tiles inwards from all perimeters.

The above specifications are intended to prevent water ingress, with no guarantee provided for the performance of the roof tiles used in these situations. Should the work be subject to Local Authority Building Regulations, it is advisable to seek the approval of the Local Building Control Department with regards to this detail and have confirmation in writing from the underlay manufacturer to ensure the impermeability and wind loading performance of the product is satisfactory. We trust that this information proves of some assistance, but should you require any further help or advice, please do not hesitate to contact us again.

The third and final method is using Ondutile this is another roof underlay system utilising corrugated roof sheets below the tiles to create a secondary weatherproof roof.

The work must be carried out strictly in accordance with their BBA Certificate

This enables the primary tiled roof to be used safely below the minimum recommended roof pitch.

Ondutiles minimum recommendation for Interlocking concrete tiles is: 12.5° and for Plain concrete double lap tiles: 22.5°

Details are available at: [onduline.co.uk](http://onduline.co.uk)