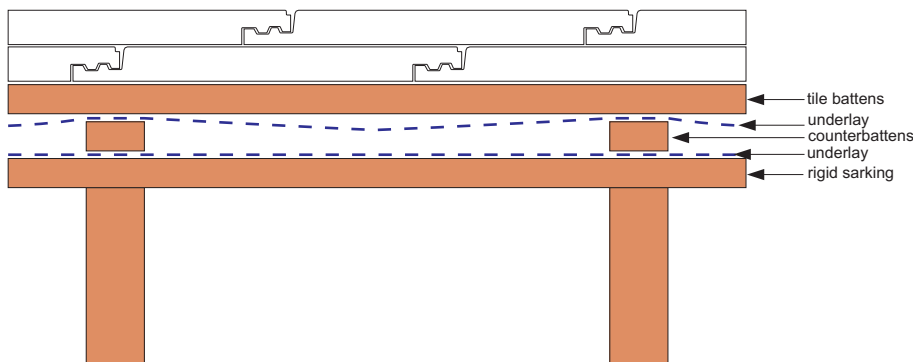


The use of roof tiles below their minimum recommended roof pitch

If a roof tile is used on a roof which is below a manufacturer's minimum recommended roof pitch, then the risk of water ingress needs to be recognised, and the sub-roof, ie underlay, battens etc, should be designed to take this risk into consideration.

Sandtoft does not have any recommendations on the design of a totally waterproof sub-roof. However, we offer the following suggestions:-

- 1) Fix rigid sarking (eg waterproof plywood boarding) over rafters.
- 2) Lay underlay over rigid sarking.
- 3) Fix counterbattens over rigid sarking. Use length of nail which will give adequate penetration into the rafter, assuming that the rigid sarking has no structural value.
- 4) Lay a second layer of underlay over counterbattens, allowing it to sag between counterbattens (this enables water to drain into the troughs, away from nail holes).
- 5) Fix tiling battens onto counterbattens.



Type 1F* underlay is unsuitable in this situation. A more durable roofing underlay should be used, such as Sandtoft KoraTech® Classic Super. Other vapour permeable underlays or plastic roofing underlays could also be considered but advice on the suitability of an underlay should be sought from the underlay manufacturer.

In some circumstances, where the risk of water penetration through the tiles may be deemed to be low, it may not be necessary to construct the roof as described above. For example, the rigid sarking and counterbattens could be omitted. Instead, two layers of Sandtoft KoraTech® Classic Super could be used, with increased laps and laps staggered between the two layers.

We stress that the above are suggestions only and are intended for small, single storey extensions to domestic properties. Sandtoft does not accept liability for roof tiles or slates laid below the minimum recommended roof pitches stated in our Technical literature .

Approval should be sought from the local Building Authority for any proposal where roofing tiles are to be fixed below the manufacturer's minimum recommended roof pitch.

For more information please contact Sandtoft Technical Support on 0844 9395 999.

**Type 1F and Type 5U underlays are described in Annex A of BS 5534: 2003*

November 09



Dr John's technical notes