

Technical Guidance

Slate hook fixings



Question

Is it acceptable to use slate hooks for fixing natural slates?

Considerations

- Roof fixings should be sufficient to resist the wind uplift forces and avoid slates blowing off or chattering on the roof. Fixings should also resist lateral dislodgement of the slates.
- Slate hook fixings come in two styles i.e. with a spike end for driving into the tiling battens or a hook-over end for hooking over a tiling batten. Both types are described in BS 5534 'Code of practice for slating and tiling'.
- Slates are fixed with only one hook placed centrally along the lower edge of the slate. NHBC Standards clause 7.2-S11(d) says slates should be fully nailed over the whole roof.

Answer

The use of hook-over type slate hooks is not acceptable. Spike-ended slate hooks may be acceptable providing they are minimum 2.7mm diameter wire and can be shown to resist the wind uplift for the roof in question. The supplier should provide wind uplift figures for the roof and his fixings to show compliance, alternatively local examples of satisfactory use of the hook fixings could be considered.

Slate hooks may be unsuitable for large slates which experience a greater wind uplift than smaller slates and for pitches above 75 degrees or below 25 degrees. Slate hooks are available with straight or crimped shanks. Crimped hooks reduce capillary action and should be used for roof pitches below 30 degrees.

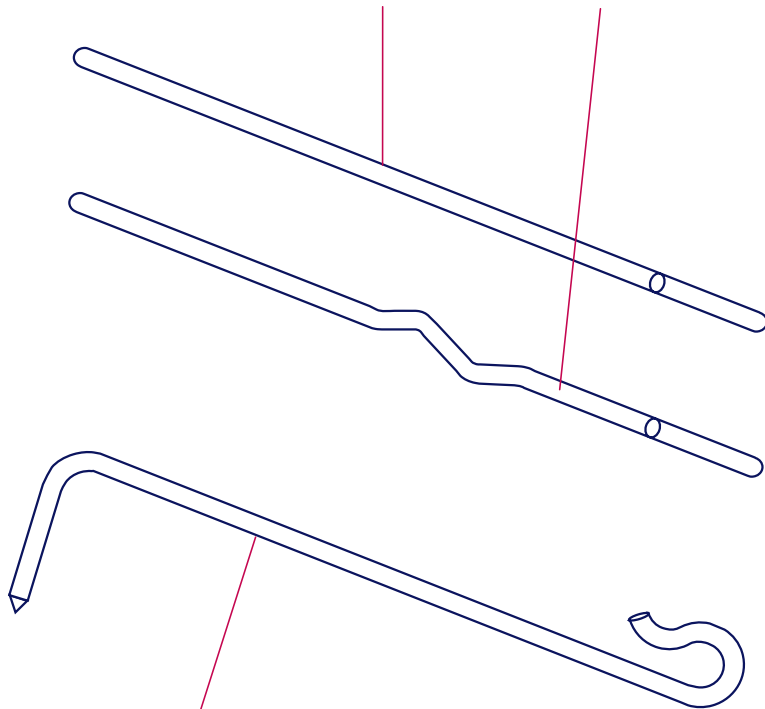
Slates at the perimeter of a roof e.g. eaves, valleys, verges, ridges, hips, abutments and penetrations should be nailed to resist uplift and lateral drift.

Slate hooks should be made of stainless steel wire of the following grades:

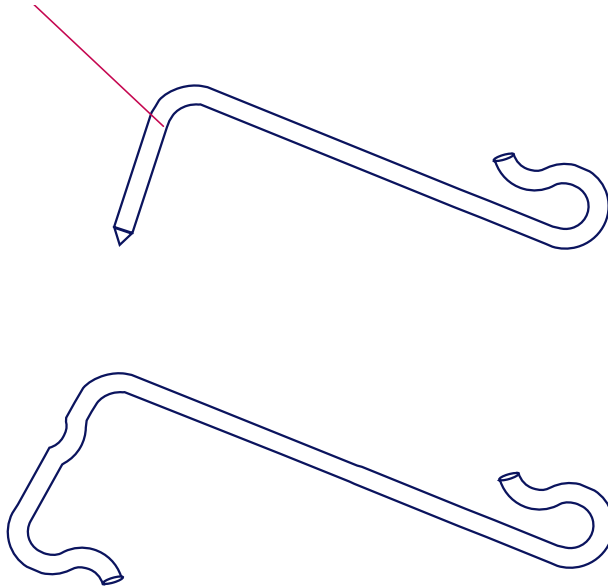
AISI 316-S11 or S19 to BS 1554 or
1.4404 or 1.4401 to BS EN 10088-3.

Amended

top view showing straight shank and crimped shank options



spike ended driven slate hooks



hook over slate hook (not accepted)