



Clay & Slate Technical Bulletin Slate Fixing

Natural Slates can be fixed by two methods, nailing or hook fixing. Whilst nailing has been the traditional way of fixing slate in the UK, hook fixing has several advantages and for all roofs over 30 degrees we recommend hook fixing. The following are our recommendations for nailing and hook fixing natural slates.

Nailing

Whilst BS5534 states that slate nails should be aluminium to BS 1202: Part 3, copper to BS 1202: Part 2, or silicon-bronze, we recommend that copper nails are used. Copper is harder than aluminium and makes nailing into battens easier and more effective. Copper nails are also better in areas where there are corrosive or marine atmospheres.

As Natural slates vary in thickness the minimum nail size appropriate is 38/40 x 2.65mm. We do not recommend the use of 30mm long slate nails.

Hook Fixing

Hooks should be the Drive-In type and formed from black stainless-steel wire conforming to BS EN 10088-3:2005, grade 316. The hooks should be 2.7mm diameter and be at least 5m longer than the appropriate slate lap.

Typically, slate hooks are fitted between the perpendicular joints of each slate with the spike at the upper end driven into the batten. The curved hook at the opposite end should be located over the leading edge of the slate. Between 25- & 30-degree roof pitches the hooks must have a crimped shank. *Hooks must not be used below 25-degree roof pitches.*

All perimeter slates must also be twice nailed, and we recommend that improved (ring shank) nails are used at perimeters.

Slate Hooks designed to be wrapped around battens are not recommended in the UK.

Advantages of Slate Hook Fixing

- Significant reduction in labour costs.
- Less likelihood of unseen hair line cracks in the slates leading to slipped slates. In any case the hook holds the tail of the slate in place.
- Easier to replace if slates are damaged after installation.
- Good wind uplift resistance.