

Tiling tips: No 1 holes through underlay

It never ceases to amaze me that a roof tiler will spend hours carefully laying out underlay across the roof, lapping it correctly to prevent water on the underlay pen-

whilst dust will gravitate down the underlay more slowly depending upon the pitch of the roof.
■ collector of condensation that forms on the underside of the roof

etrating through what is the secondary waterproof layer of the roof, then proceed to cut unprotected holes through it for roof windows, pipes, flues, vents, cables or safety anchors. Often the existence of a hole in the underlay is only detected when a leak higher up the roof drains down through the unprotected hole, damaging internal decorations.

Function

The underlay is an essential element of the roof as it is a:
■ temporary roof covering against heavy rain during construction, which lasts up until the final ridge or hip tile is secured.
■ barrier to dust and snow that will penetrate the laps of the tiles. When temperatures rise the melted snow runs down the underlay,

during cold, damp weather.

■ diaphragm to separate positive air pressure in the building from acting on the underside of the roof covering during periods of high wind suction. A hole in the underlay can contribute to a loss of tiles or slates under extreme wind conditions.

■ barrier to keep insects and small animals from entering the roof. Small insects will always be able to enter the batten cavity, but if the corrugations of a profiled tile are not closed off at the eaves, large insects and small animals can easily get into the batten cavity from the gutters.

Problem areas

■ Underlay should not come within 25mm of a hot flue pipe. This is less of a problem with the

new design of condensing boiler, as flue pipe temperatures are lower.

■ Proprietary underlay seals glued to the underlay may not work with

by supervision not detecting that compliance with fixing instructions, drawings and specification has not been achieved.

Advice

All holes through the underlay need to be protected. A tight fitting metal or plastic seal, similar to a lead slate, lapped into the underlay tends to be the most effective method of sealing the hole. If from inside the roof you can see the underside of the roof covering around the pipe or duct through the underlay, then protection to the hole is unlikely to be adequate. Round pipes can be difficult to protect. Square ducts are simpler, but have vulnerable corners. They can be sealed using lapped sections of underlay laid up the face of the duct. If there is no pipe or duct passing through the underlay, protecting the hole is more difficult. Keep the number and size of penetrations through the roof to an absolute minimum and as high up the roof slope as possible.



~ An L shaped component resting against the batten and slotted through a slit in the underlay diverts the water running down the underlay around the correctly sized rectangular hole. Pulling the underlay up and nailing it to the batten assists the water to flow away from the hole. (Photo courtesy Building Product Design Group)

banded bitumen underlay.

■ Few proprietary components for protecting a hole in underlay manage to reinstate all the functions of the underlay and those that do tend to be difficult to fit. The process of cutting an 'X' in the underlay and folding back the loose sections around the pipe is common but not an adequate solution. Often fixing instructions are ignored or the components thrown away. This situation is not helped

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