Installing Ceramic Ridge Tile on a Slate Roof Using Flexim

Joseph Jenkins

IF THERE’S ONE THING MASTER SLATER RAY KROECK CAN DO, IT’S A FANTASTIC SLATE VALLEY.

A perfectionist at heart, Kroeck (above) comes from a lineage of German master roofers. His father Karl Kroeck (left) received his professional roofing papers in Germany in 1938 at the age of 19. Now Ray, of Kroeck and Sons in Sacramento, installs slate roofs in northern California.

On one relentlessly sunny California day, Ray demonstrated how he was installing clay tile hips and ridges on a Chinese multi-color slate roof using Flexim, a product from Holland. Flexim is a permanently flexible, waterproof tile adhesive. It is non-toxic and not corrosive, made of linseed oil, polystyrene, fibers and pigments and available in several colors.

The advantage of Flexim is that it replaces the need for traditional cement mortar. Although mortar has been in use for centuries and is an excellent material, it does have its drawbacks. For example, if new mortar gets rained on, it can leach mortar stains down the roof, and if the stains dry out, they can be permanent (Figure 1). Mortar can also be difficult to work with when the ambient temperature is very hot or very cold. Mortar also requires water, is heavy, and has to be mixed. Flexim comes in a box, requires no water or mixing, is lightweight, can be worked in a wide range of ambient temperatures and is not affected by rain or water. Therefore, there may be times when a traditional tile hip or ridge installation can benefit from the use of this material.

First, Ray made some walking platforms out of 1/2" plywood and foam (Figure 2). The foam was attached to the plywood with a spray adhesive. The platforms enabled Ray to walk on the 6:12 sloped roof without damaging the slate. They were small and portable enough to lay out like stepping stones, and they could be easily moved.

He then installed a 2X2 wooden nailer on the apex of the hip. The nailer was grooved on the underside in order to nestle snuggly on the roof (Figure 3). A second wooden nailer may be added on top of the first to achieve the correct height for the particular tile being used.

The roof is chalked to ensure that the tiles follow a straight line and the hip tiles are then laid dry and spaced uniformly to avoid having a short tile at one end or the other. The tiles are nailed to the nailer with a copper roofing nail (Figure 4).

The Flexim is removed from the box, taken out of the plastic wrap and sliced down the middle lengthwise (Figure 5). In some cases, it may be used in one piece without slicing. It is now ready to...
apply to the roof.

The strips of Flexim are firmly pressed into the roof along the chalk lines where the tiles will be laid (Figure 6), then the tile is firmly pressed into the Flexim and nailed (Figures 7 and 8). The excess Flexim is then cut away using a pointed trowel (Figure 9). The extra pieces that are cut off are used to fill in the space where the two tiles overlap as well as the downward end of the tile.

This process is repeated until the entire hip or ridge has been installed. The end result is an attractive ridge or hip installation that is impermeable to rain and weather and resistant to bats, insects and rodents (Figure 10).