



## Cold-Weather Shingles

by Henry Spies

### Flapping Shingles

**Q.** *We have a lot of trouble installing fiberglass shingles in cold weather. The shingles tend to split and the tabs won't seal. The old organic asphalt shingles seem to be unavailable. Any suggestions?*

**A.** Your problems are common. I've seen shingles in a 50-mph wind that looked like the flip card section at a college football game. The tabs will not seal until there is a sunny day or two above 40°F. If there is dust blowing around before the shingles seal, it may coat the adhesive and they will never seal.

The adhesive on self-sealing fiberglass shingles seems to be their major problem. If it sticks well enough to hold the shingles on the roof, it may not creep enough to allow the roof sheathing to move with changes in moisture. The result is that the shingles split. The old organic shingles would creep within the shingle itself, but the fiberglass does not. And using an adhesive with enough creep may not hold the shingles down.

It helps to store the shingles in a warmer area until they are needed on the roof, to keep them flexible, but this creates more work. At least one company has attacked the problem of flexibility by adding 12 to 14% styrene/butadiene/styrene (Shell's "Kraton"). The resulting shingle is flexible down to 0°F. These shingles have reportedly been installed in temperatures as low as 20°F in Alaska. The manufacturer, Malarkey Roofing Co. (P.O. Box 17217, Portland, OR 97217; 503/283-1191), is only distributing this shingle as far east as Denver. Other manufacturers may soon be using a similar formulation as the demand increases.

### Underlayment for Tile

**Q.** *Should an underlayment be used with ceramic tile over a plywood subfloor? If so, what material would you recommend?*

**A.** When bonding ceramic tiles with an adhesive, you should use an underlayment to absorb movement in the subfloor. Otherwise, the movements, caused by the expansion and contraction of the wood subfloor with changes in moisture content, can crack the inflexible grout between the tiles. A reinforced cement-board, such as

Wonderboard or Durock, works well as an underlayment. It is nailed to the subfloor and the tile is attached with adhesive over it. The old method of notching the floor joists to drop the subfloor and setting the tile in a thick mortar bed on the subfloor works well, but is seldom used today.

### Venting A Sloped Crawlspace

**Q.** *How do you vent a crawlspace under a house on a sloping site? On a recent job, the uphill side was covered with a patio and the customer wouldn't accept window wells in the patio. Will this side get enough ventilation with conventional vents along the pony walls on the downhill side?*

**A.** As long as the crawlspace is reasonably dry, vents on only three sides should be adequate to vent the crawlspace. If there is good drainage (the slope would indicate that this is likely), and a plastic ground cover is installed, there shouldn't be much problem. But while vents on all sides may not be needed, don't forget that it is much easier to install them during construction than to cut them in later, if the need ever arises.

### Hemlock Siding

**Q.** *I am working on a project where native (New York) hemlock board-and-batten siding has been specified. I am not familiar with this material. How should I prep and install it?*

**A.** First, the hemlock should be dry — preferably at 15% or less moisture content. The boards should be spaced 1/2 inch apart, with 1 1/2-inch battens. Use stainless-steel nails, and secure the boards with one line of 8d siding nails in the center. Secure the battens with one line of 10d nails between the boards. The siding should be finished with a semi-transparent or opaque oil-based penetrating stain.

Hemlock is not a great choice as a siding material. On a scale of 1 to 10, it rates as a 6 in paint retention, and about 5 in resistance to cupping. It checks conspicuously. ■

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