Q&A

Q. Drip-Edge and Roofing Membranes

When using peel-and-stick roofing membranes, does it matter if the membrane goes under rather than over the metal drip edge at the eaves? In my work as a home inspector, I've noticed that these membranes get installed both ways, and that even manufacturers differ in their recommendations. Also, what about the rakes? Should the drip edge lap over the felt paper underlayment, or vice versa?

A. *Paul Fisette, director of Building Materials and Wood Technology at the University of Massachusetts Amherst and a* JLC *contributing editor, responds:* In practice, I think that either method will work fine, in most cases. But my preference is to install the membrane over the drip edge so that any water that has intruded beneath the shingles runs down and out over the top surface of the drip edge. If the self-sticking quality of the membrane is strong, the connection will be continuous and water won't have a chance to back up between the membrane and the sheathing, even if there is an ice dam.

Interestingly, I once worked as a consultant for one of the major peel-and-stick membrane manufacturers when it was first developing its product. At the time, the company's engineers felt that applying the membrane directly to the roof deck offered the best protection for the sheathing if water ever got underneath the drip edge. But when the membrane is installed beneath the drip edge, there's a good chance the metal won't lie perfectly flat with the entire top edge pressed into the membrane, in which case fish-mouth gaps in the drip edge could allow water to pass underneath and eventually wet the bottom raw edge of the sheathing.

Felt paper works a little differently than peel-and-stick membranes in that it isn't self-healing and doesn't seal surfaces it covers, which makes proper layering more important. So, at the rake, I think the best practice is to cover the roof deck with paper first (putting it over the top of the rake is fine, as long as it is trimmed neatly), and then place the drip edge on top of the paper. With this detail, leakage from wind-blown rain against the roof edge along the rake will be directed over the drip edge and onto the paper, rather than onto the roof sheathing.

Of course, remember that the ability of felt paper to provide protection is limited; that's really the job of the shingles.

Q. Fasteners for ACQ Plates

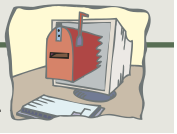
What type of gun nails should you use with ACQ plates and mudsills? Is it necessary to use stainless steel and then switch back to regular nails for regular lumber?

A. *Tim Uhler, a lead framer for Pioneer Builders in Port Orchard, Wash., responds:* Unlike the CCA (chromated copper arsenate) material they've replaced, the new pressure-treating chemical compounds — ACQ (alkaline copper quat), ACZA (ammoniacal copper zinc arsenate), CA (copper azole), and CC (ammoniacal copper citrate) — are very corrosive. Since conventional fasteners aren't compatible with this current crop of pressure-treated lumber, you'll need to use either hot-dipped galvanized or stainless steel fasteners.

Because my crew frames new homes, this issue affects how we fasten joists, rims, and sheathing to treated mudsills. Our initial response was to switch to hot-dipped galvanized stick nails when we were working with mudsills (stainless steel fasteners are just too expensive), but it's a big hassle to change fasteners every time you want to nail into the sill. Also, there still seems to be some question about how well these fasteners stand up to the new pressure-treating chemicals over time.

GOT A QUESTION?

Send it to Q&A, *JLC,* 186 Allen Brook Lane, Williston, VT 05495; or e-mail to jlc-editorial@hanleywood.com.



Several months back, we stopped using pressure-treated lumber altogether and started using lumber treated with SBX (sodium borate) for sills. Borate-treated wood resists insects and rot and is nontoxic to humans and the environment. It's not appropriate for decks or ground-contact applications, but it's fine for mudsills because they're protected from water. And since borate-treated lumber doesn't corrode fasteners, we were able to go back to using conventional nails for the entire frame.

There's one drawback to borate-treated lumber: It should not be exposed to the weather for very long, because the borate can leach out if it stays wet. Manufacturers indicate that it's okay for borate-treated lumber to be exposed to the weather during the "normal" construction process, but they don't say exactly how long that is; my understanding is that they're talking months rather than weeks. Our houses are dried in within three weeks, and when borate-treated material is on site we keep it under tarps.

Some building inspectors aren't familiar with borate-treated lumber, so be sure to get their approval before using it.

On those rare occasions when we have to use pressure-treated lumber, we use framing hardware with extra corrosion protection, such as Simpson's ZMAX (800/999-5099, www.strongtie.com) and USP's Triple Zinc G-185 (800/328-5934, www.uspconnectors.com) connectors, as well as both companies' more heavily coated hot-dipped galvanized fasteners.

Q. Sealers for Porch Floors

We just installed a T&G fir floor on a covered porch that the customer plans to have painted in the spring. I would prefer to at least seal the wood against the weather until the painter has a chance to prime and top-coat the floor. Do you have any recommendations?

A. *Bill Feist, a former wood-finishes researcher with the Forest Products Laboratory in Madison, Wis., and co-author of* Finishes for Exterior Wood, *responds:* To protect the fir flooring over the winter, your best choice would be to use a paintable water-repellent preservative (WRP) like Behr's No. 2-85 Multi-Purpose Waterproofing Sealer (800/854-0133, extension 2; www.behr.com); Wolman's Woodlife Classic Clear Wood Preservative (800/556-7737, www.wolman.com); or Cuprinol's Clear Deck & Wood Seal (800/424-5837, www.cuprinol.com).

There are a variety of WRPs on the market. Many of them are formulated for use as natural finishes on decks and fences, but these are not paintable and could cause paint-adhesion problems like blistering or peeling later on. So it's very important that the treatment you choose be described as paintable by the manufacturer.

There are many advantages to using a paintable WRP on unpainted porch flooring before priming and painting. Besides inhibiting mildew growth and retarding decay in above-ground applications, the treatment reduces raised grain, checking, warping, and splitting. It also improves paint adhesion, which would be especially valuable on a difficult-to-paint wood like flat-grain fir.

It's always best to treat all sides (front, back, ends, and edges) of your flooring with the WRP before installation. But even when unfinished porch flooring has already been installed, it's helpful to back-treat with WRP as much as you can, assuming access under the porch is reasonable. Research has shown conclusively that solid wood products back-primed with a WRP retain paint better — and perform better overall — than those coated on one side only.