Q&A

Q. Sidewall Shingles Over Foam Sheathing

How do I fasten cedar shingles to sidewalls covered with rigid foam?

A. *Paul Eldrenkamp, owner of Byggmeister, a custom remodeling firm in Newton, Mass., responds:* That depends partly on the thickness of the foam. If it's 1½ inches or less, we apply Cedar Breather over the taped foam to provide back venting, and fasten the shingles to the structural sheathing beneath with 2½- or 3-inch stainless steel nails. That approach has worked fine in our area, but we aren't subject to big wind loads. If you're not comfortable using the surface of the foam as the drainage plane, you could apply housewrap or asphalt felt under the Cedar Breather.

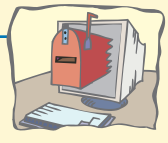
If you're adding 2 inches of foam or more, the easiest option is to use cedar-shingle panels, which consist of shingles laminated to a plywood backing. They can be applied over vertical battens, just like back-vented clapboards. Despite the premium pricing for the panels, this may be the most cost-effective strategy when labor costs are factored in.

Another approach is to apply a layer of ½-inch sheathing over the foam, fastened through to the framing with long screws. We then cover the sheathing with asphalt felt and Cedar Breather, which I feel offers better drainage and back-venting than one-step drainage wraps like Tyvek DrainWrap.

In a few cases, we've actually installed horizontal battens for each course of shingles. That can go pretty fast if the shingle exposure is 6 inches or more and you're dealing with large expanses of mostly uninterrupted wall, but it's impossibly time-consuming if you're dealing with cheek walls of dormers or other chopped-up areas. In my experience, there's no need to cut kerfs in the backs of the battens to provide drainage — we just leave a gap between the butt ends of the strapping. In cases where we've opened up such walls years later (we did the first one this way in 1989), we've found that the assembly was performing just fine.

GOT A QUESTION?

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



Q. Micronized-Copper Treated Lumber

I'm building an outdoor deck for a client who wants me to use lumber treated with micronized copper, in the belief that it's less harmful to the environment than wood treated with other chemicals. I'm not very familiar with the material. Can it be used in ground-contact applications, including load-bearing posts?

A. *Adam Taylor, the wood-products extension specialist at the University of Tennessee, responds:* The short answer is yes, micronized-copper treated wood can be used in load-bearing and ground-contact applications. However, a little more background information might be helpful.

Treated lumber is widely used for decking and other exposed woodwork. The treatment process uses vacuum and pressure to force preservative liquids deep into the wood. After treatment the water evaporates, but the chemicals remain to protect the wood.

Until about 2004, the most common preservative used was copper combined with chromium and arsenic, or CCA. After CCA was withdrawn from residential use, it was replaced by alkaline copper quaternary (ACQ) and copper azole (CA), which include organic co-biocides instead of chromium and arsenic. Like CCA, both of these newer formulations leave the wood green in color (unless a dye is added), clean to the touch, paintable, and protected from insect attack and rot. ACQ and CA are very corrosive to metal, however, so it is important to use only ceramic-coated, stainless steel, or other approved screws and nails in lumber treated with them.

Micronized copper preservatives are variants of ACQ and CA. The key difference is that rather than being dissolved in the preservative, the copper takes the form of tiny solid particles —"micronized" copper — that are suspended in the treatment liquid. Wood treated with micronized copper is less corrosive to metal fasteners and lighter in color than wood treated with conventional ACQ or CA. You still need to use approved fasteners, but aluminum flashing can be used in contact with the treated wood. Brand names include Yellawood MCQ, MicroPro, and SmartSense.

All of the CCA replacements — including the micronized copper products — have much higher levels of copper than CCA itself, meaning that there's greater potential for the copper to leach out of treated wood into the

surrounding environment. Fish are particularly sensitive to copper, and since test results have shown that micronized products resist leaching better than those that contain soluble copper, micronized lumber may be a more environmentally friendly choice where treated lumber will be in close contact with a pond, lake, or stream. That's the theory, anyway. But practically speaking, who knows? Chemicals in treated wood products are strictly regulated by the EPA and so far there has been no evidence of copper-treated wood causing environmental problems in use.

Micronized lumber is accepted by the I-codes, although its route to that acceptance has resulted in some confusion. Traditionally, wood preservatives have been evaluated and approved by the American Wood Protection Association, and AWPA approval — or "standardization," as it's called — is the usual avenue to acceptance by the codes. Micronized copper preservatives, however, have not been evaluated by AWPA; their code approval is based on an evaluation by the ICC Evaluation Service (ICC-ES).

Despite that technical difference, the traditional AWPA use classes — such as decking, above-ground use, and ground contact — are referenced in the ICC-ES evaluation report and on the lumber end tags. As with any type of treated lumber, you should make sure the designation on the end tag corresponds to your intended use. Ground contact increases the risk of rot and insect attack, and requires a higher level of preservative treatment.

Q. When the Homeowner Does the Demo

I'm considering a job remodeling a kitchen on a pre-1978 house. The budget-conscious client wants to save money by doing the demo work himself, which I understand he can legally do in his own home. Can I come onto the job afterward and work without following lead-safe work practices, since I won't be doing any demo?

A. *Shawn McCadden, a remodeling industry specialist and consultant in Groton, Mass., responds:* One of the challenges of the Renovation, Repair, and Painting (RRP) rule is trying to interpret what the text of the rule means. At only eight hours, the required certification training class concentrates on work practices and spends very little time on the nitty-gritty of the actual rule. One place I find helpful for interpretations is the RRP FAQ area of the EPA website, where this question is directly addressed. The EPA's answer is straightforward: "No. Projects that do not disturb a painted surface are not subject to the RRP rule."

In such a situation, to protect yourself and your business, I recommend that you document the condition of the space before you get started — maybe even take a few pictures. Keep this information in the job folder for historical purposes. I also recommend that you make notes in your written contract that your work will not include any demolition, and that demolition and cleaning of the site are to be done by others before you begin.

In short, going along with this homeowner's request is legal and you can do the work with traditional work practices. However, to perform work — or even offer to perform work — on a pre-1978 home, you still must be an EPA-certified firm. The only exception is if you are in a state that has received EPA authorization to administer and enforce its own version of the rule, in which case you will have to meet those state requirements. Also, it's a good idea to HEPA-vac the space before you start work, to limit your workers' potential exposure to any remaining dust, and to prevent that dust from being tracked around the house during the course of the project.