

Q. Back-Priming Fiber-Cement Siding

We ordered preprimed HardiePlank lap siding to finish a project, but when it was delivered, we discovered that the backs were left unprimed. Normally, we back-prime wood clapboards, but I'm not sure this step is needed with fiber-cement siding, and the manufacturer's Web site is mute on the subject. Is back-priming necessary?

A. *Mark Parlee, a builder specializing in siding installations in Urbandale, Iowa, replies:* You're right to be concerned about the moisture resistance of fiber-cement siding, but carefully following the manufacturer's installation guidelines will have more of an impact on the siding's performance than back-priming. According to Rick Crotts, my local James Hardie representative,

it's not necessary to back-prime any of the company's fiber-cement siding products. He says that when panels are primed in the factory, some primer ends up on the back of the boards as they pass over the rollers, but this isn't a half-hearted attempt at priming the backs. Hardie actually infuses its fiber-cement substrate with a primer during the manufacturing process to improve paint adhesion, Crotts says.

My company installs a lot of fiber-cement siding (10 to 12 houses per year), and in our experience, paint failure occurs only when the siding wicks up excessive moisture because of poor detailing, such as insufficient clearances at cheek walls and missing kick-out and diverter flashings.

Q. Stainless Steel and Rebar

Can stainless steel tie wire be used with standard rebar?

A. *Bill Palmer, president of Complete Construction Consultants in Lyons, Colo., responds:* Stainless tie wire can cost six times as much as standard tie wire. Unless you're trying to avoid potential rust spots (in places where the tie wire gets too close to the surface of the concrete) or have a few spare rolls, it's not a very economical choice. You may be worried about galvanic action — always a concern with dissimilar metals — but that's not likely to be a problem when you're wiring regular carbon steel rebar together with stainless steel ties. Some types of stainless steel are actually pretty close to carbon steel on the galvanic scale, while other types of nonmagnetic stainless steel with higher levels of noble metals — like chromium and nickel — are

further away and therefore more likely to react galvanically with it. Either way, the quantities of stainless steel are too small to lead to significant corrosion damage. And since tie wire's only function is to position the rebar while concrete is being placed, corrosion wouldn't affect the integrity of the structure anyway.

A related question is whether it's acceptable to use regular carbon-steel tie wire with stainless steel rebar. SS rebar is often used in extremely corrosive environments like coastal areas, and while corroded tie wires wouldn't matter structurally, they might pose a cosmetic problem and raise concerns about the quality of the concrete work. SS rebar is also often specified for hospital and research facilities because of its nonmagnetic properties; for these projects nonmagnetic stainless steel tie wire should be used.

Q. OSB Subfloor Over Decking?

We're building a four-season addition over an existing raised deck framed with PT lumber. Is it okay to install OSB subfloor sheathing directly over the wood decking, or should the decking be removed first?

A. *Bryan Readling, a senior engineer with APA/Engineered Wood Association, responds:* If the deck footings, framing, and house connections are adequate for the anticipated loads, and the existing decking is sound and reasonably flat, you don't necessarily have to remove it

before laying down a new OSB subfloor and framing the addition. However, there are some advantages to doing so anyway.

For one, removing the decking would allow you to thoroughly inspect the framing and easily make any needed repairs or upgrades. You'll also avoid squeaky floors, bumps in the floor sheathing, and other problems caused by loose, warped, or misaligned deck boards, or by wet joists drying out and causing decking fasteners to lose their grip. If you take off the decking, clean the tops

of the joists with a scraper, and glue and nail the sheathing directly to the joists, you will end up with a solid floor system and be more likely to avoid callbacks.

If you still choose to install the sheathing over the existing decking, be sure to follow APA's recommended nailing schedule for underlayment (the *Engineered Wood Construction Guide*, Form E30, is available at apawood.org). Fasteners — ring-shank

nails are best — for 7/16-inch OSB should be 6 inches on-center around the panel perimeter and 8 inches on-center each way in a grid pattern on the interior of the panel. (If you're using 23/32-inch T&G sheathing, the perimeter nailing schedule is the same, but the grid pattern can be increased to 12 inches on-center.)

To minimize squeaking and nail pops caused by shrinking lumber, use

construction adhesive and nail into the decking rather than into the joists. Also, select fasteners that are long enough to protrude slightly below the bottom of the deck. Keep in mind, too, that the deck framing will now have to comply with local building-code guidelines for ground clearance, floor insulation, and ventilation.

Q. Best Nails for Drywall

I can't find the blued ring-shank drywall nails I started hanging drywall with 30 years ago. All that seems to be available are cheap and flimsy drywall nails that bend too easily when I nail them in, rust as soon as I apply mud, and leave my hands covered with black ink. Why don't they make drywall nails like they used to?

A. JLC associate editor Andrew Wormer responds: According to John Kurz of the International Staple, Nail, and Tool Association (ISANTA), the pro market for drywall nails has largely dried up, as most drywall contractors now use screws instead of nails to install gypsum board and accessories like corner bead. Screws have greater holding power than nails and aren't as likely to pop with structural movement or when framing lumber shrinks; also, the IRC requires more nails than screws when installing drywall. Says Galway, N.Y., drywall contractor Myron Ferguson, "Ten or 15 years ago, we used nails around the perimeter of each sheet, nailing the drywall up as fast as we could and then coming back later with screw guns to finish off the centers. But as screw guns improved and we realized how much less screws pop than nails, we eventually stopped using nails altogether."

Because drywallers like Ferguson use screws almost exclusively, Kurz suggests that some retailers may be stocking cheaper drywall nails targeted to DIYers, and it's possible that some of them don't actually meet code. The 2009 IRC calls for drywall nails to meet ASTM C514 specifications, and while there aren't any specific requirements for corrosion resistance, there are for shank diameter, head diameter, and length. When used with 1/2-inch drywall, for example, ring-shanked nails should have a minimum diameter of 0.098 inch and a minimum length of 1 1/4 inches (table R702.3.5, 2009 IRC).

I found code-compliant drywall nails from Grip Rite (grip-rite.com, 800/676-7777) at the two major home centers in my area and at a local hardware store (see photo above); similar nails are available online from sources like National Nail (nationalnail.com, 800/521-1115). The annular ring nails have a sturdy 12 1/2-gauge shank and a blued finish, which is a thin methyl oxide coating designed less for corrosion resistance than to help the



Both the cement-coated smooth-shank drywall nail (far left) and the blued ring-shank drywall nail (left) meet code requirements, but they're more likely to pop than a drywall screw.

nail hold more securely. The smooth-shank nails are cement coated, a finish that can rub off when the nails are handled.

Ferguson notes that in addition to being more closely spaced than screws, nails should be installed in pairs to avoid damaging the paper face and core of the drywall. He spaces the nails in each pair about 1 1/2 inches apart and hits each nail alternately until the face is dimpled and the heads are set just below the surface of the drywall.