



Cutting Concrete

Q. *What's the best way to cut through a concrete wall? A concrete saw won't cut all the way through an 8-inch foundation wall. We've even tried suspending a jackhammer from the floor joists, but this is awkward at best and leaves a ragged edge.*

A. *George Smith responds:* You're not the only one who's struggled with this problem. You can beat yourself up trying to cut a door or window through a foundation wall.

The easiest way is to rent one of two specialty saws, if available. A Partner ring saw can cut to a depth of about 10 inches (Partner Industrial Products, 905 W. Irving Park Rd., Itasca, IL 60143; 708/773-2801). Or RGC makes a concrete chain saw that cuts to a full 15 inches (RGC Construction Equip., P.O. Box 681, Buffalo, NY 14240; 716/895-1156). Both run on a hydraulic power pack and require special (read "expensive") diamond blades.

We don't have access to these saws here on Tortola, where everything is built with concrete. So we make do with a standard 14-inch concrete saw (we use the Bosch).

To support the saw, make this simple rig: Build an A-frame out of 2x4s, either screwing the top of the frame to the joists, or attaching a third leg to make a freestanding tripod. Throw a rope over the cross rail of the A-frame, tying one end to the front (top) handle of the concrete saw and the other end to a 5-gallon mud bucket. Then fill the bucket with enough sand or rubble to counterweight the saw.

The counterweight will not only make it easier to keep the saw elevated, but it will allow you to apply light, even pressure as you cut. When cutting concrete, you don't want to bear down on the saw. If you hit rebar, you'll see the sparks. Back out, then go back into the cut very gently.

A 14-inch saw has a depth-of-cut of about $4\frac{7}{8}$ inches, so you'll have to cut from both sides of the wall. Before you

begin, drill holes at each corner, keeping the hammer drill as straight as you can. Then you can draw layout lines on the wall to align your cuts on both sides. If the wall will be plastered, overcut the corners. If not, cut to the corner holes, then bust the remaining pieces out with a sledgehammer and cold chisel.

Most of the time we use a silicon-carbide abrasive blade for concrete and masonry. Diamond blades are nice, but very expensive (\$400 to \$800 each).

George Smith owns Island Equipment on Tortola, British Virgin Islands.

A Clear Finish That Works

Q. *What type of clear finish do you recommend for exterior siding?*

A. *Byron Papa responds:* I've found that almost no clear finish holds up more than a year outside. Clear coatings allow the ultraviolet (UV) rays in sunlight to penetrate, degrading the outermost layer of cells in the wood siding. Add water from rain and humidity (we get plenty of both here in North Carolina) and tiny mildew spores begin growing on the surface of the wood. This further breaks down the bond between the wood and finish. Consequently, with almost any clear finish, you have to recoat each year.

The only thing I've found that holds up better is an oil-based clear coating from Sikkens (AKZO Nobel Coating, P.O. Box 5062, Troy, MI 48007; 800/833-7288). This goes on like a varnish, but the surface buildup is 30 to 35 microns thick, which is two to three times thicker than most other coatings. (For the West Coast, where legislation limits the use of high-VOC products, Sikkens is working on another product. Most likely this will be oil-based with a high solids content.)

The Sikkens coatings aren't absolutely clear. They have a synthetic iron-oxide pigment. Though they have a

variety of tints, I've used only a natural cedar color, which turns cedar the reddish brown of an unfinished mahogany. The iron oxide in the finish actually reflects UV light, so it can't penetrate the coating and break down the underlying wood as fast. Sikkens claims to grind the iron-oxide particles much finer than other coating manufacturers. Because the finish is so thick and the particles so fine, you get a nearly impenetrable coating of iron oxide. I get about three years out of the product before a house needs another maintenance coat.

On the down side, the Sikkens coatings are expensive — on the order of \$45 per gallon. If you're spending that kind of money, it's only worth putting them on a premium wood siding, such as redwood, western red cedar, or cypress. And it's worth taking the time to apply them right the first time. This includes good prep.

First, backprime with a water-based exterior primer, tinted to match closely the translucent Sikkens finish.

Before applying the finish, power wash new siding, either with an oxalic-acid cleaner, such as Dekswood (The Flood Co., P.O. Box 399, Hudson, OH 44236; 800/321-3444), or with trisodium phosphate. This raises the grain and allows the finish to penetrate better. While any clear finish will stick better to rough-sawn siding, it's absolutely essential to wash smooth siding, which develops a "mill glazing" that closes the pores in the wood.

Let the wood dry. Here in the Southeast, this can take six to eight weeks. But this step is probably as important as washing. The weathering helps open the pores in the wood surface to allow the finish to penetrate.

I apply three coats with a white China bristle brush (it pays to lay out money for a good brush). For the first coat I use Sikkens' Cetol 1, which is thin, like a primer, and penetrates well into the wood. For coats two and three, use the Cetol 2-3 Plus, which is thicker. For decks and other horizontal surfaces, Sikkens makes DEK Base and Cetol DEK, which have superfine silica particles to help resist the abrasion of foot traffic. ■

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