

# Q&A

## Q. Patching Plaster

*The punch list for a remodeling job that I am doing on an 1880s house includes a few small plaster repairs. The damaged areas are small — about the size of a hand — and they are not in a prominent area, so I feel confident that I can tackle them myself without calling in a specialty subcontractor. What's the easiest way to patch small holes in plaster?*

**A.** *Contributing editor Tom O'Brien, a carpenter in New Milford, Conn., responds:* First, make sure the surrounding plaster is firmly attached to the lath. If the plaster surface is sound but gives under pressure, I use plaster washers from Charles St. Supply Co. ([charlesstsupply.com](http://charlesstsupply.com)) to anchor it firmly to the lath and the studs.

An alternative is to drill 1/4-inch holes through the plaster (but not the lath), inject construction adhesive into the holes, and then apply pressure to the entire area with a braced piece of plywood

(such as a concrete form) until the adhesive has cured.

Drywall makes a good plaster-patching material, but since plaster thickness is never consistent, it's always good to have some scraps of 1/4-inch and 3/8-inch on hand; 1/2-inch drywall might be too thick. Once I've removed the damaged plaster and stabilized the surrounding area, I cut the drywall patch to size and screw it to the wood lath. Then I tape the patch with fiberglass mesh tape, and mud the repaired area with a setting-type joint

compound, such as Durabond 45 ([usg.com](http://usg.com)). After the setting compound has hardened, I feather out the repair with one or two thin coats of lightweight joint compound.

For very small holes with good lath backing, you could skip the drywall patch and just use setting compound, or mix up a batch of hardware-store-variety plaster. If you do use actual plaster, keep in mind that you won't be able to sand it afterward, so you'll need some basic trowel skills. If there are cracks, I use an old 5-in-1 tool or a bottle-opener to flare them out, and then mist them with water before spreading the setting compound.

## Q. Three-Coat Stucco Over Foam

*My clients like the look and durability of a traditional cement-based three-coat stucco finish, but they want it installed over a continuous layer of rigid foam. Can I simply install a double layer of Grade-D 60-minute paper over the foam before nailing up the lath, or are there other steps I should take?*

**A.** *Barry Jenkins of Southern Stucco in Knoxville, Tenn., responds:* Normally a designer would specify EIFS cladding when both exterior insulation and a stucco-like finish are desired. The mixture of EIFS and traditional stucco you describe is possible, but it's not a conventional installation with standard details. Here is the approach my company — which installs both stucco and EIFS — would use if we were to tackle a project like this.

- Install the rigid foam over plywood sheathing (not OSB) that has been properly nailed to the studs, with 1/8-inch gaps between the panel edges so the sheets can expand without compressing each other. This will help prevent the sheathing from developing joint lines that could telegraph

through the foam and crack the stucco.

- With EIFS claddings, the IRC now requires a fluid-applied weather-resistive barrier (WRB) over the sheathing prior to installation of the rigid foam, an approach I would recommend with this system. A liquid WRB (StoGuard is a good example; [stocorp.com](http://stocorp.com)) also provides a terrific air barrier, and can actually be extended down over the above-grade part of the foundation if the sheathing is flush with the foundation wall.

- I recommend XPS foam, and would glue it to the sheathing with a trowel-applied adhesive like Sto BTS plus, orienting the U-notched trowel so that the grooves are vertical and continuous from top to bottom to enhance drainage. Since fastener deflection is a critical concern whenever

a heavy exterior cladding is attached over continuous foam insulation, I wouldn't use rigid foam that is more than an inch thick. If the lath fasteners are numerous and penetrate at least 3/4 inch into the studs (rather than into just the sheathing), the lath assembly should be strong enough to support the stucco.

- Despite the presence of the liquid-applied WRB, some local codes may still require a double layer of building paper underneath the stucco. If not, I would use only a single layer of Grade-D 60-minute paper, which should satisfy your code official. The paper (along with the liquid-applied WRB under the foam) provides a secondary belt-and-suspenders drain plane. Even more important, it acts as a bond break that allows the stucco to behave monolithically, independent of the underlying foam and sheathing. We've found that cement-based scratch coats applied directly to foam tend to bubble, creating lots of craters and voids in the scratch coat.

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- When installing the metal lath (I recommend using galvanized 2.5-pound self-furring diamond mesh lath), you may find that the rigid foam complicates the application of the accessory beads. I can't make any specific recommendations without seeing actual details, but I can tell you that when the available profiles don't work, we have a metal shop fabricate exactly what we need. By the way, don't forget the screed. Standard stucco screed won't be deep enough to accommodate both the foam and the stucco, but vinyl screeds typically used with EIFS should work fine.
- Once you start applying the scratch coat, you're just doing conventional stucco.