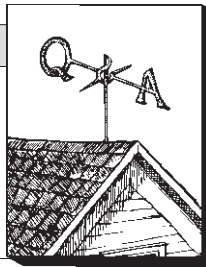


Is This Concrete Waterproof?

by Henry Speis



Bentonite and Concrete

Q. Can bentonite be added to concrete to help waterproof a foundation?

A. Bentonite is a fine clay that swells when it absorbs water, and becomes almost impervious. It is used as a coating against foundation walls (and over the roofs of underground houses) to keep water from reaching the concrete. It is also injected along foundations in retrofit situations (often unsuccessfully). Including Bentonite in the concrete can interfere with the chemical reaction of setting and result in weak concrete almost guaranteed to fail.

Blower Door Sources

Q. Where can I purchase a blower door and get instructions for using it?

A. One source for blower doors is Minneapolis Blower Door (920 W. 53rd St., Minneapolis, MN 55419; 612/827-1117). They have produced a 2½-hour video that describes how to set up a blower door, take and interpret the readings, and do the needed calculations to figure the infiltration rate of your house. They can also set up training sessions, either individually or through state energy offices and extension services. Another source for blower doors is Infiltec (P.O. Box 8007, Falls Church, VA 22041, 703/820-7696). This company can also set up individual training sessions for customers who buy their equipment. Or, an appointment can be arranged to go to their facilities for training prior to buying a door.

Shingle Hazard

Q. Many of the homes in my area are sided with "asbestos" shingles. What are

the hazards of removing these and how should they be disposed of?

A. The "asbestos" shingles you refer to are made of cement-asbestos. Asbestos was added to the cement to provide strength, just as plastic fibers are sometimes added to slabs to resist cracking. Workers removing cement-asbestos shingles face a possible hazard of inhaling the asbestos fibers. There is a good chance the fibers will be dislodged when a shingle is broken (as many probably will be if they are removed). One mitigation expert I consulted with claimed that he has recorded some of the highest airborne asbestos counts during the removal of cement-asbestos products.

Workers removing the shingles should wear a breathing mask with a HEPA filter cartridge rated for asbestos fibers. Disposable clothing is also recommended.

The shingles must be disposed of like other asbestos products. They must first be sealed in an approved container. The containers must then be transported to an approved landfill. The transportation of this hazardous material is regulated by the Department of Transportation. Removal and disposal is regulated by the EPA. For more information, consult your regional EPA office.

Taping To Wood

Q. Can glue be added to joint compound when taping a drywall-to-wood joint?

A. Some tapers apply a coat of carpenter's glue on the wood and a coat of joint compound on the drywall to set the tape in. The second and third coats can be done with joint compound alone. The new adhesive-backed cloth tapes might also do the job without the use of wood glue.

Even with these steps, however, there is a good chance a drywall-to-wood joint will crack. Wood tends to expand and contract much more than drywall from the initial drying and later changes in the humidity.

Condensation Problems

Q. A customer has complained of heavy condensation on the windows since we put blown-in cellulose in an old balloon-framed house. Could the insulation be contributing to this problem? What might be done to correct the problem now?

A. The condensation is taking place because of increased relative humidity in the house. When the insulation was installed, you probably reduced the amount of air infiltration into the house. Since the moisture in the house air is no longer diluted by incoming air, the relative humidity increased.

Another possibility is that something unrelated to the insulation installation occurred at about the same time, such as partial blockage of the furnace or water heater flue. This would dump the water produced by combustion back into the house. I recall one job where an aluminum siding installer was blamed for a similar problem until the occupants were almost overcome by carbon monoxide from a nearly blocked flue.

Regardless of the cause, the first step towards correcting the situation would be to eliminate any extreme sources of moisture in the house. In an old house, there may be a dirt basement or crawlspace without a vapor barrier over the soil surface. Vents from furnaces, water heaters, range hoods, and clothes driers should be directed outside. Even storing green firewood and air drying clothes indoors can contribute to the humidity level.

If this doesn't clear up the problem, try providing some additional ventilation. Through-the-wall vents or even a mechanical ventilation system might be options. ■

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