



Peeling Plaster

by Henry Spies

Q. We recently renovated a large hallway in a home built in the 1890s. We stripped four layers of paper and patched several areas with drywall patches, joint compound, and plaster washers as needed. The walls were then rinsed with tri-sodium phosphate and water to remove the glue and chemical residue. After the drywall patches were made, all surface areas were coated with Durabond 90, followed by one or two coats of joint compound. A fast-dry alkyd primer was applied as a sealer. Finally, an acrylic-coated, pre-pasted wallpaper was hung. A week later, a 15x30-inch section of the original plaster finish coat separated from the original scratch coat. Later, the seams of wallpaper lifted, and upon closer inspection, it was apparent that both the Durabond and the original lime coat had lifted from the scratch coat along with the wallpaper edges. We've never seen this problem in ten years of renovation and decorating work. What might have caused it?

A. The problem was probably the result of a combination of factors. The bond between the lime coat and the scratch coat in old plaster is often not very good. Delamination in 50 to 60 years is quite common. By washing the wall with TSP and applying pre-pasted wallpaper, presumably from a water box, enough moisture may have been added to weaken the bond. The amount of pull exerted by drying wallpaper adhesive, is often underestimated. Wallpaper adhesive does shrink as it dries, with vinyl adhesive exerting more pull than wheat paste. A decorator that I know sometimes uses premixed heavy-duty vinyl wallpaper paste as a stripper for flaking paint—he just brushes on a coat and lets it dry. Both the paste and the paint usually fall off in about 48 to 72 hours. Another possible factor is that if the lime in the original finish coat was not completely slaked, the additional water might have caused a chemical reaction which could have caused “pops” in the lime coat.

Nails for Treated Wood

Q. Which type of nail is better for fire-retardant-treated lumber, hot-dipped galvanized or stainless steel? How about with copper-chromate-treated wood?

A. Obviously, stainless steel is better, but not always required. There are three types of fire-retardant treatments, and the fastener requirements vary.

Interior Type B should be fastened with stainless steel nails or truss plates. This is also known as “old interior type” and is no longer produced by the major treaters. Trade names included “Flameproof,” “Interior Fire-X,” “Interior Non-Com,” and “Pyrasote.” I understand that one or more small treatment plants are still producing Interior Type B.

Interior Type A is required to be no more corrosive than untreated wood at 95 percent relative humidity or

below. It should be protected from water and higher humidities. This material appeared on the market around 1981. Major brands include “Flameproof-LHC,” “Dricon,” “Protex,” and “Pyro-guard.”

Exterior FRT wood needs fasteners which are not corrosive in wet conditions, but hot-dipped galvanized nails are usually adequate. There were only two major brands of exterior FRT wood, “Exterior Fire X,” and “Non-Com X.” The latter is not being produced at this time.

CCA-treated wood is not corrosive and requires only common nails for interior use and hot-dipped galvanized for exterior use.

Drywall Disaster

Q. I used a new brand of drywall recently, and it sagged all over the ceiling wherever it was not screwed. I used 1/2-inch drywall, double screws 12 inches on center, and ceiling strapping 16 inches on center. The drywall rep blamed the problem on the vapor barrier, but there was no unusual moisture source. Any ideas?

A. Unusual moisture sources are not necessary—the common ones are quite adequate to cause the problem. The ceiling insulation should be installed as soon as possible after the drywall is hung, and definitely before it is taped. If the ceiling is not insulated, the vapor barrier may become the coldest available surface, and the moisture from the taping compound, the wood framing, the incompletely cured concrete, etc., may condense on the polyethylene, which will wet the drywall from the back, causing the sag. The problem is aggravated if unvented heaters are used to dry the taping compound, as often happens in cool weather construction.

Shed-Roof Venting

Q. What is the most effective method to ventilate the ceiling of an addition with a shed-roof cathedral ceiling?

A. The combination of a continuous soffit vent and a continuous peak or flashing vent should be adequate. Most manufacturers of ridge vents also make a continuous vent for use at the peak of a shed roof and a combination flashing/vent for roofs that stop at a vertical wall. The insulation should be held down at least 2 inches below the sheathing to provide space for air flow. This may not be the ultimate solution, but seems to be the “state of the art” at present. ■

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