That Strange “Chalky Residue”

There’s a Reason Why a “Chalky Residue” Sometimes Shows Up on Sun Exposed Windows—and What You Can Do About It

By John Bucholtz, P.E.

Occasionally windows on sunny exposures will show a “chalky residue” deposited in the form of streaks running down the window glass from above. The deposit can be scraped off easily, and it yields readily to relatively mild acid solutions (including vinegar).

Looking at windows and their streaks is confusing as to source of the residue, but some small scale experiments show that carbonates, at least, can be transported across stucco surfaces and can be deposited on window glass as the sun evaporates water which holds the water-soluble salts.

New colored stucco surfaces when exposed to rains yield a quantity of water soluble salts as rainwater passes over the surfaces. The only place these deposits are noticeable, of course, is on glass (or wood trim) for it blends readily with the field of stucco as it travels across the surfaces.

Once the deposits have settled on windows, the best suggestion is to use a sponge or soft cloth with dilute acid or vinegar and remove the stains or deposits. The surfaces should be rinsed and cleaned thereafter.

How can this phenomenon be prevented? This is one of those questions like “are you married or happy?” The prevention may be less attractive than the cure. A bonding agent introduced into the stucco mix will help prevent the condition. A sealer applied shortly after the finish coat application will help prevent it. But probably the easiest course is to remove the salts after they have been deposited. Chances of recurrence are slim—although the condition could recur under certain circumstances.

Mainly, there is nothing in the deposits to injure the glazing. Where wood trim exists, it may be prudent to wrap it with polyethylene or otherwise protect it from salt deposits from the stucco surfaces. Different woods react with alkaline salts to discolor permanently. The best advice is to protect wood trim with a temporary protective membrane.