

The good, the bad and the ugly of synthetic stucco

A: Traditional stucco is brittle, requiring expansion joints on the surface, while EIFS is not, and does not require visible joints. Traditional stucco may crack and/or become permanently stained, requiring painting; EIFS does not generally crack. The EIFS acrylic facing materials are flexible, allow only minute amounts of moisture to pass and are colorfast.

EIFS comes in unlimited colors and textures, and is adaptable for a variety of architectural styles and trim effects simply by carving and gluing a piece of foam over a window or door (using traditional stucco, this would require complex wood framing, difficult with some shapes). The foam adds a layer of insulation to the exterior of the wall, decreasing energy usage and making the building quieter. And to boot, it's cheaper than traditional stucco in many areas.

Q: Sounds great. Why all the fuss?

A: We could spend all day on this, but the long and short of it is leaky buildings and rotten walls.

The EIFS industry is in its darkest hour. A great stigma has befallen this material in the construction and real-estate industries, led by large numbers of failures, faulty installations, costly repairs and lawsuits across the wetter parts of the U.S. and Canada, including the Puget Sound area.

EIFS has been called "the rich man's LP" (referring to Louisiana Pacific's troubled "Inner Seal" siding). And one of the biggest problems facing EIFS contractors today is renewals on their insurance.

Q: So is EIFS to blame?

A: Blame can be spread a lot of directions, and fingers are getting worn out pointing everywhere simultaneously.

Plaintiff attorneys blame EIFS manufacturers, who point to window manufacturers, who point to builders, who point to installers, who point at homeowners (lack of maintenance!), who point to architects, who point to insurance companies, who then point back at the EIFS companies. It's a circular blame game, and everyone has some culpability.

Siding failures and leakage can and do occur with any type of siding. All types of siding leak or absorb some amounts of moisture unless covered by huge roof overhangs. However, with EIFS, water damage can be exacerbated, as it does not allow water to evaporate back out of the building shell like other types of siding.

Before fall 1996, EIFS insulating board was glued or nailed directly onto the wall of the building, lacking any secondary waterproofing whatsoever (Barrier EIFS). This was legal and often not inspected by the building department or anyone else. The idea was that the acrylic waterproof covering and caulking would protect the walls. Many shortcuts were performed during installation, underlayment materials and/or moisture barriers were installed improperly and sometimes wrapped up-side-down, flashing was missed, caulking was improperly applied and failed and windows leaked (up to 40 percent of all windows leak to some degree).

Add new tighter interior-wall regulations in the early 1990s (eliminating evaporation to the interior) and a building boom with inexperienced installers, and you had a disaster of unimaginable proportions.

Q: So what happened?

A: After huge numbers of costly repairs in Wilmington, N.C., spreading quickly to other areas in the middle '90s, national builders, the EIFS industry and code organizations got together to assess the problems, and come up with solutions and requirements in the previously unregulated industry.

They found that the previous method, a "**barrier system**," was not working because it did not always keep water out. The requirement was to add a "drainage system" behind all EIFS installations to drain incidental leakage; these proprietary systems becoming the responsibility of the manufacturer to implement and enforce among installers.

Q: Do the new systems work?

A: The jury is still out.

The advantages of flexible acrylic facing cannot be denied, and to avoid the EIFS stigma, many builders are putting EIFS-derived acrylic top finishes over conventional stucco bases (which drain naturally rather than hold moisture, as does EPS) and foam trim pieces. So far, the returns on these installations have been good, and the good look of the EIFS topcoat and flexibility remains, with a conventional time-tested cement base.