With all the recent failures and resulting lawsuits, aren’t the days numbered for exterior insulation and finish systems as a building system? —C.S., New York

Absolutely not. As with any aspect of construction, everyone from the specifier to the mechanic must know their craft when using exterior insulation and finish systems, or EIFS. The competition in the world of EIFS is fierce, and the number of manufacturers of EIFS products is ever-increasing. The irony of having a successful product is that the more it is used, the more opportunities there are for mishaps.

Regarding the alleged past failures: According to Dick Hopkins of J. Dick Hopkins & Associates, Inc., a wall and ceiling consultant with almost 30 years of experience in specifying EIFS, many of the alleged failures that resulted in lawsuits were finally attributed to poorly designed windows, lack of flashing in the openings, and possibly a quirk in the North Carolina building code. Hopkins points out that the North Carolina code requires that a moisture barrier be installed under the cladding, which can trap intruding water in the wall and result in the decomposition of the framing and sheathing. The neighboring states of Virginia and South Carolina do not have such a requirement, and have had far fewer similarly related problems. Hopkins adds that these finishing systems have been used successfully in Europe for roughly 50 years, and in North America since the mid-1970s. Many of those early systems are still very much intact and looking nearly new.

As for the future of EIFS, these systems have several favorable attributes that make them an obvious first choice as a building system. Steel framing is growing in popularity as a building material, even in residential construction. Steel framing has many advantages that make it preferable to wood framing; however, it also conducts heat and cold much better than wood, creating a greater need for an exterior layer of insulation. As the use of steel framing increases, so does the need for exterior insulation, making EIFS an obvious choice.

EIF systems are also relatively lightweight, which reduces the load and stress on the structure, in turn, reducing cracking and other stress-related problems.

The entire system provides a weather resistant envelope for the building. In fact, the acrylic finish itself is fade resistant, flexible, water-resistant and resistant to ultra-violet rays. Although EIFS must be carefully installed, they are not especially difficult to install, and can be effectively, efficiently and profitably installed, provided that several rules are followed.

The rules for installing successful EIFS (PB class) are clearly laid down in ASTM standard C 1397-98. The problems previously encountered with EIFS can be avoided if the specifier, the inspector and the mechanic all become familiar with this standard and adhere to its provisions. Finally, it is most important to carefully follow the manufacturer’s specifications, which means that it is even more important to stick to one manufacturer’s system at a time. Mixing and matching of different systems is a recipe for disaster.

About the Author
Lee G. Jones is AWCI’s director of technical services. Send your questions to him in care of Construction Dimensions, or send your e-mail question to jones@awci.org.