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Caution Advised in Using EIFS Systems

Members who are installing barrier EIFS products in their homes are being strongly cautioned by NAHB that the design of the EIFS systems, unlike other cladding, does not allow water penetrating the external surface of the system to drain.

NAHB believes that homes with barrier EIFS can develop moisture intrusion problems even when properly constructed according to industry standards. Also, home owners who do not diligently ensure that all openings in the house remain properly sealed and caulked over the life of the structure may be more likely to encounter water intrusion problems than with other types of cladding systems.

NAHB agrees with liability insurance carriers, relocation services, mortgage lenders, building code officials in North Carolina and Georgia, and others who say that barrier EIFS systems make homes more susceptible to moisture intrusion problems. Some builders who have excellent records for quality in construction when building homes with other cladding systems have experienced problems with homes they built with barrier EIFS.

There are two types of Exterior Insulation and Finish Systems, or synthetic stucco, in use. In a barrier EIFS system, if water gets behind the foam insulating board by passing through penetrations in the EIFS – such as those for doors, windows, leakage through window frames, foot/wall intersections, chimneys and deck attachments – then it can become trapped and soak into the sheathing and other building components.

It is for this reason that "drainable" EIFS systems are now being marketed. These new systems attempt to correct the drainage problems by providing a way for intruding water to escape. However, test results on the long-term effectiveness of these new systems are not yet available, and it remains to be seen whether the drainable systems are less problematic than barrier EIFS.

Water damage to homes with barrier EIFS has resulted in numerous lawsuits, including a pending class action suit in North Carolina. The EIFS industry has blamed the problem on inadequate installation by builders. However, NAHB believes that these accusations are distracting attention from a more important issue: that barrier EIFS systems don't provide a back-up system for protection against the water intrusion that occurs in most residential construction.

All exterior finishes – vinyl, wood siding, brick, etc. – can, and do, experience occasional water intrusion problems such as when sealants crack or break down. However, these cladding systems allow the moisture to escape, unlike barrier EIFS systems, which trap the moisture – a point that some EIFS manufacturers ignore when claiming that the EIFS products are not the source of the moisture entry.

Barrier EIFS were originally designed for masonry construction and typically used in the commercial sector. Integration of building components tended to be oriented toward commercial construction. In NAHB's opinion, the barrier EIFS systems have proven to be incompatible with the existing wood frame construction methods typically used in residential construction in the United States, and that has resulted in significant problems.

Determining the scope of the problem is difficult, because the damage usually occurs between the interior and exterior walls, which cannot be visually inspected. Although NAHB does not have an estimate of the

number of EIFS homes with moisture intrusion problems, the problem is believed to be national in scope and not confined to states in the Southeast. NAHB examinations have determined that the level of damage is usually confined to less than 5% of the sheathing, which means that the large majority of moisture problems are manageable and can be repaired at a reasonable cost.

During the past two years, NAHB has been working with consumers, manufacturers, insurers and other interested parties to try to negotiate a settlement so that most of the monies expended would be devoted to fixing houses for home owners rather than paying legal fees. Also, NAHB and the NAHB Research Center have been working with EIFS manufacturers (such as Dryvit Systems, Inc. and Sto Corp.), Zurich Insurance (formerly known as "The Maryland") and building code officials to develop repair methods that cost effectively retrofit barrier-EIFS so that water entering behind exterior cladding does not become trapped and has an avenue of escape. These methods are currently being field tested and are expected to be available in the marketplace some time next year.

Anyone with technical questions about EIFS should call the NAHB Research Center Home Base Hotline at 1-800-898-2842. The Research Center offers the following publications about EIFS: "Moisture Testing Guide for Wood Frame Construction Clad with Exterior Insulation and Finish Systems"; "Quality Control Considerations for the Installation of Drainable EIFS"; and "Water Intrusion and Remediation of Wood Frame Houses with EIFS."