



# SCHAEFER NEWS

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## EIFS - Exterior Insulation and Finish Systems “Synthetic Stucco”

EIFS, an acronym for Exterior Insulation and Finish Systems, is a type of synthetic stucco. There are currently two major types of EIFS manufactured today. First, EIFS barrier system in which the product is applied with adhesive directly to the exterior sheathing of the home. Second, EIFS with drainage has recently been developed. It is mechanically applied with fasteners and allows water penetration behind the siding to drain out, reducing the potential for trapped moisture which can damage the home.

The first type, Barrier systems, have come under severe scrutiny since the 1980's. Many homes have been found to have moisture damage from water seepage around windows, doors, chimneys, flashing etc. This seepage cannot drain out, unlike conventional siding such as wood or brick, and significant moisture damage has occurred. This trapped moisture has become such a problem in some areas that EIFS has been banned in North Carolina and is significantly regulated in Georgia.

The EIFS found on modern homes in the US are produced by several manufacturers, most of which belong to EIMA - “EIFS Industry Members Association”. EIMA maintains that barrier EIFS are a quality product and problems that have occurred have been primarily the result of improper installation and maintenance.

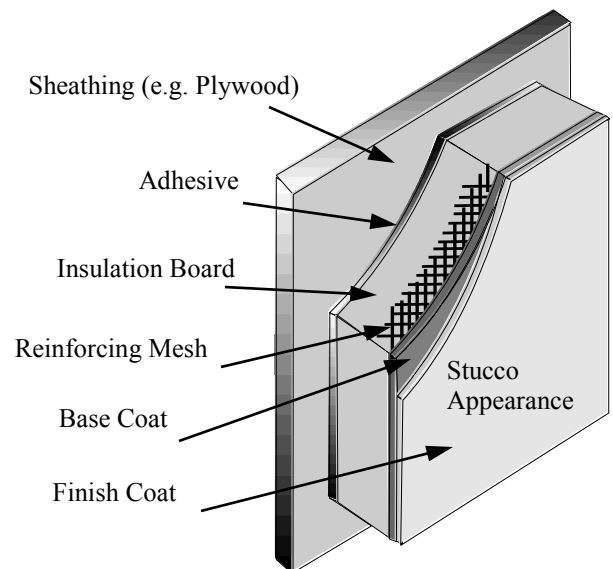
Others claim that barrier EIFS have inherent problems that cannot be overcome, even when installed properly and with extensive maintenance by the home owner.

This article will present a brief overview of both sides of this controversy.

### Manufacturers Stand by Their Product

The position of many who manufacture EIFS is that if properly installed and maintained, EIFS has a good record. They point to the many commercial buildings with EIFS which have held up well with few reported problems for many years.

They represent that it is not their product that fails or allows moisture penetration and damage, but rather the manner in which it was installed. Some builders of residential homes do not have the control methods that commercial builders have, (from the architects to project managers to crew supervisors to the installer). Therefore, homes are often not properly flashed and sealed around windows, doors chimneys, decks, etc. *(continued on page 2)*



EIFS BARRIER CROSS SECTION

It is these areas where moisture penetrates and damage occurs. They represent, if the EIFS has been properly installed and damage still takes place, it is because the home has not been maintained properly by the home owner. Like any home, maintenance is a requirement. Caulking around windows, doors and other surface openings must be maintained on a home with EIFS, just as it is on any other home. If the caulking dries out, or in any other way loses its seal, seepage can occur, causing significant damage.

#### **EIFS WITH DRAINAGE**

EIFS with drainage has now been manufactured so that in the event seepage does take place, the moisture has a way of escape and is not trapped behind the siding, thus reducing the potential for damage. However, the EIFS industry as a whole still stands by and is selling the barrier systems.

#### **Not All Agree with the Represented Virtues of EIFS by its Manufacturers.**

Many argue that a home with EIFS must be made waterproof (not water resistant) like conventionally sided homes. Houses with brick or wood siding are designed knowing some seepage will take place around windows, doors and other such openings; however, because the siding or brick is not sealed to the sheathing, the vapor barrier paper will protect the home from this seepage and allow it to drain out.

It is impossible to prevent seepage even under the most extensive maintenance programs. Caulking joints fail, even under laboratory conditions. Homes are often exposed to severe weather, movements of the building, settlement etc. Therefore, even when proper installation has been performed, materials such as caulk and flashing will not maintain a water proof seal. Very small openings will eventually occur that may not be detected even with an extensive maintenance program. This is typically not a problem for conventional siding for reasons mentioned above; however for an EIFS home, it can be very problematic because damage taking place behind the wall may not become apparent until significant deterioration has developed.

If barrier EIFS is an acceptable system in which normal maintenance will protect the home from moisture damage, why develop a new system with drainage provision?

#### **INSPECTION**

The average home inspection is a visual inspection of readily accessible areas of the home. A home inspector is not responsible for identifying problems that cannot be seen. Therefore, moisture damage may exist in homes with EIFS (as it can in any home) that cannot be detected by the home inspector if it is not severe enough to have become visible on the surface of either the interior or exterior walls. By that time the damage may be extensive. A specialist may need to be called who can probe through the EIFS to the sheathing with a moisture meter designed for this type of inspection. The probe holes are very small and can usually be patched without being noticeable. Permission from the seller of the home should be obtained in writing before probing.

#### **A NOTE TO REALTORS:**

Several States require disclosures to the purchaser of homes with barrier-EIFS as to the potential problems from moisture intrusion. As of this writing, it is not a requirement in Connecticut. Realtors should consider doing this to protect their client from harm and themselves from legal action. Recommending your client have the home inspected by a qualified forensic moisture-intrusion inspector should also be considered.

The information contained in this article is a summary of information obtainable from many sources, from industry trade magazines to the internet. It is put forth to make the public aware of a potential problem. It is not designed to take sides nor does it guarantee the accuracy of the information either side has made available to the public. If you are involved in a transaction with an EIFS home we recommend you learn as much as you can from as many sources as possible so you can make an informed decision.

MARVIN H. SCHAEFER INSPECTION SERVICE INC.