The Risk Illuminator

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Dear LQA:

Q: What is "EIFS" (commonly pronounced – "eefus") ?
R.S. Phoenix, AZ

A: Exterior Insulation & Finish System "EIFS" is a multi-layered building skin. The interior layer is an insulated polystyrene or polisocyanurate foam board which is adhered to an exterior wall surface (substrate) either mechanically or with a specially formulated adhesive. A durable water resistant base coat is applied to the insulated board, along with reinforced fiberglass mesh, and a final aesthetic coat (typically acrylic copolymer) is applied which is color fast and crack resistant. This forms what has been described as a "warm, thermal, waterproof, blanket wrapping the building. The resulting building skin resembles stucco. To learn more about EIFS you can visit www.eifsfacts.com.

Exterior Insulation & Finish Systems (EIFS)

There has been recent negative publicity about EIFS because of numerous incidents of moisture damage to various residential structures in various parts of the country. Much of this attention may be unfounded.

EIFS was developed in Europe in the 1950's. It has been utilized in the US for over 30 yrs., primarily in the commercial construction industry. It was later introduced to residential home building. EIFS, today, accounts for over 20% of commercial wall exteriors, and 3-5% of residential exteriors. The benefits include cost efficiency, energy efficiency, design flexibility, and, most importantly, its ability to resist outdoor elements. EIFS reduces air filtration, stabilizes the interior environment, and reduces energy consumption. Other exterior finish systems leave "thermal breaks" or gaps where heat & cold pass more freely between the outdoors and the spaces within including at studs, wall outlets, wall joints, etc.

Another major EIFS benefit is flexibility. Its appearance resembles stucco or stone, but offers much more flexibility in that the colors are almost limitless and it can be fashioned into nearly any shape or size. For example, the "Arc de Triumphe" of Paris Las Vegas' Casino Resort is 50% EIFS. The intricate moldings and nearly exact reproduction was only possible thru the use of EIFS.

The recent negative publicity is primarily associated with residential homes. Damage to these structures includes rotting of the sheathing or framing, and some extreme cases of molding which can cause "sick building syndrome". Most of these instances have occurred in wet coastal areas such as N. Carolina and Maryland. Commercial construction has experienced significantly less problems assoc-

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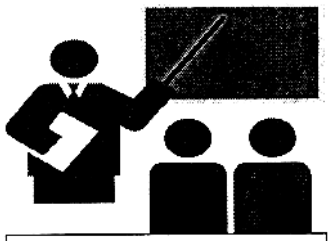

Hard-Hat University

"POP QUIZ #5"

Match the terms with the definitions:

1. Eluvium
2. Embrasure
3. Evase
4. Eutectic
5. Escutcheon
6. Epistyle
7. Excheat

A. A circular trim piece fitting around a pipe (i.e. showerhead or faucet) and covers opening where the pipe passes thru the wall.
B. A gradual tapering section of an exhaust stack.
C. the flaring of a window/ door opening toward the inside of a structure.
D. A cross beam between columns

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TOPICS IN THIS ISSUE

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EIFS (from page 1)

iated with EIFS. In fact, EIFS has performed well enough on the commercial side that "Building Design" magazine reports 45.7% of the commercial industry will increase their use of EIFS. The primary reasons for the different performance history between the commercial and residential industries are related to the checks & balances associated with commercial construction. The three processes which typically occur in commercial construction which are much less typical in the residential industry include utilization of specifications, application & monitoring. Also, EIFS works very effectively with minimal problems when other watershed components such as roof flashing, sealants, gutters, downspouts, and sidings are of good quality, are applied properly, and, thus, are able to help prevent water infiltration. This means correct sealing, caulking, and flashing around windows and other critical moisture entry points. If no moisture were to leak into the structure, then there should be no worries about rotting or molding. Commercial construction checks & balances help create the symbiotic relationship between these water components and EIFS. There are fewer regulations & guidelines that pertain to the residential construction industry. For example, there are (21) states that do NOT regulate home builders; only (19) states issue home builder licenses that require "minimal" work experience. Most problems found with EIFS are typically related to application, incorrect installation of substandard building materials (i.e. windows), and/or inadequate caulking or flashing. EIFS manufacturers have also added EIFS drainage which helps offset some of the problems generated by mistakes with other watershed elements. In addition, the industry has established the EIFS Industry Members Assoc. (EIMA) which promotes industry standards, guidelines, & practices.

Quiz (from page 1)

E. An alloy formed by that proportion of elements, in combination, that yields the lowest melting point of any of the proportions (i.e. solder).
F. A deposit of decomposed rock or soil.
G. The reversion of land ownership to the government when there are no legal heirs.

Answers: 1-F, 2-C, 3-B, 4-E, 5-A, 6-D, 7-G