



EIFS (EXTERIOR INSULATION AND FINISH SYSTEM)

is an insulating, decorative and protective finish system for exterior walls that can be installed on any type of construction. It is the only exterior wall covering that insulates and provides weather protection in a selection of shapes, colors, and textures that can replicate almost any architectural style or finish material, or stand by itself as an architectural finish. In 1952, two significant developments took place that led to the development of EIFS in Europe. The first patent was granted for expanded polystyrene (EPS) insulation board and the first synthetic plaster, an organic plaster using water based binders, was developed. The use of EPS and synthetic resin materials together began in the late 1950s and in 1963 EIFS was marketed in Europe. EIFS answered a need in the European construction market for a material that could insulate older masonry structures and enhance their appearance. The technology for EIFS was transferred to the United States in 1969. EIMA¹ was formed in 1981 to represent the common interests of the industry. By 1995 nearly 200 million square feet (18,580,608 m²) of EIFS were being installed annually on exterior walls in North America. In 1995, the industry suffered a setback when a number of EIFS clad homes in the Wilmington, North Carolina area were discovered with moisture damage behind the cladding. The damage was caused by poor construction detailing and practices, principally, the omission or improper installation of flashing in violation of minimum standards of construction set forth in building codes. A federal and several state class action lawsuits were filed, only one of which was certified (in the State of North Carolina). The North Carolina class action was settled by manufacturers. In the year 2000, EIFS—the next generation, was launched to propel EIFS into the next century.

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Use the learning objectives below to focus your study as you read guidelines for **EIFS: THE NEXT GENERATION**. To earn one AIA/CES Learning Unit including one hour of health safety credit, answer the questions on page 185, and follow the reporting instructions on page 228 or, use the Continuing Education reporting form located at www.architecturalrecord.com.

LEARNING OBJECTIVES

- Compare traditional EIFS to EIFS/the next generation.
- Describe the main drawback of EIFS/with traditional moisture protection
- Identify construction detailing to avoid water intrusion problems in EIFS.



EIFS: THE NEXT GENERATION

TRADITIONAL EIFS

A traditional EIFS (Figure 1) is a non-load bearing cladding and consists of five components: an insulation board, an adhesive and/or mechanical fastener to attach the insulation board to a substrate, reinforcing mesh for impact resistance, a base coat to embed the reinforcing mesh and to provide weather resistance, and a decorative and protective finish coat. This is the most popular type of EIFS and is classified as a Class PB (polymer based) System by EIMA. It is lightweight, easily accommodates aesthetic features such as decorative trim and reveals, and, in general, it does not require expansion and control joints like conventional stucco or masonry veneer. Its main limitations are impact resistance, and it is a barrier, or face seal wall design, which, in tandem with other barrier components—windows and sealants—resists water penetration at its outer surface.

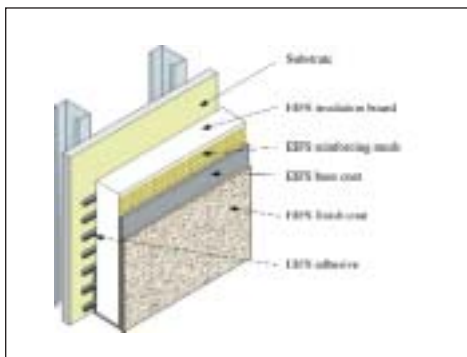


Figure 1. A Class PB EIFS consists of five components: adhesive, insulation board, base coat, reinforcing mesh and finish coat. Together they function as a decorative and protective insulating wall covering.

EIFS AND BUILDING CODES

While EIFS have been in use in the United States for more than 30 years, they are not explicitly covered in model building codes. For materials or methods of construction that are not covered, building codes generally permit the use of alternates by providing the building code official with the authority to approve alternates with justification such as testing, engineering analysis, or some other evidence of compliance with the intent of the code. Such approval is generally granted on the basis of evaluation reports written by model code evaluation services. The evaluation report establishes the method in which a system or product is to be used, limitations associated with its use, and that it is an equivalent to the construction materials/methods of the code. The evaluation report should always be consulted when considering EIFS as the exterior wall covering, as it not only provides a means to verify compliance with the applicable code, but it is also evidence that the product has been thoroughly tested and evaluated.

To obtain an evaluation report manufacturers must satisfy numerous criteria published by evaluation services that verify system durability, structural and fire performance, as well as compliance with quality control programs. The use of foam plastic insulation in wall construction, in particular, requires extensive testing to verify performance. The IBC² presents the most comprehensive set of requirements, as it essentially merges the requirements of other model codes into one book. The basic requirements for the use of foam plastic in walls are established in Chapter 26. This includes:

- Labeling
- Separation from the interior.
- Fire performance testing (see Tables 1D and 1E in this article)



Figure 2. The photo illustrates testing in accordance with UBC Standard 26-9. The test replicates a two story structure with a fire in an interior compartment and examines lateral and vertical flame spread. The test is one of many criteria set forth in model codes to evaluate the performance of foam plastic-based wall assemblies. It is one of a series of fire tests that qualifies EIFS for use on buildings of noncombustible construction.

EIFS—THE NEXT GENERATION

Class PB EIFS have been the predominant type of EIFS sold in North America, mainly because they combine low installed cost in an attractive multi-functional exterior wall covering. In recent years, as a result of building code requirements, several types of EIFS have been developed that incorporate traditional moisture protection, asphalt saturated felt, behind the EIFS. In most cases these newer types of EIFS require mechanical attachment, because EIFS adhesives will not stick to sheet goods. Mechanical fasteners have drawbacks. They act as thermal short circuits, which cause heat loss and can cause ghosting or telegraphing of the fasteners through the finished wall surface. They may also limit wind load resistance of the assembly. More recently, EIFS—the next generation, was developed to overcome the limitations of traditional moisture protection and mechanical fasteners. EIFS—the next generation incorporates a fluid applied membrane behind the EIFS wall covering on the substrate (Figure 3). The membrane has two functions:

- Air infiltration and exfiltration resistance
- Secondary moisture protection

As an air barrier the fluid applied membrane minimizes the risk of condensation within the building envelope by eliminating mass transfer of warm moisture laden interior air (in cold climates) to the exterior. As a secondary moisture barrier it provides a second line of defense in the event of a breach in the EIFS caused by impact damage or abuse. In combination with vertical ribbons of adhesive and starter tack with weepholes, the assembly provides both primary and secondary moisture protection and a means for incidental moisture to weep to the exterior. Unlike traditional moisture protection prescribed in the code (asphalt saturated felt) or housewraps, the fluid applied membrane is structural once it is applied to the substrate, since it essentially coats and adheres to the substrate. This eliminates the pitfalls associated with felt or fabric

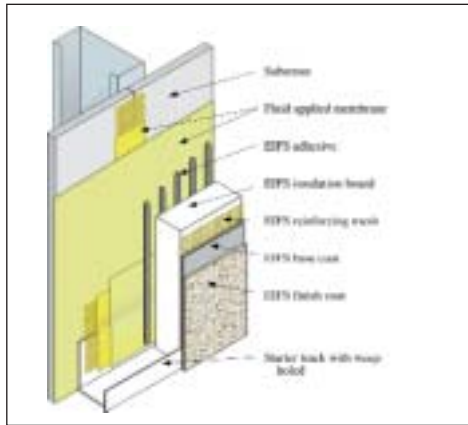


Figure 3. EIFS—the next generation incorporates a fluid applied membrane that functions as an air barrier and secondary moisture barrier in the wall assembly. Weepholes (not shown) behind the drip edge of the starter track direct water to the exterior in the event of a breach in the EIFS wall covering caused by impact or abuse.

moisture protection—punctures, and the potential for tearing and mis-lapping during installation. It also optimizes performance as an air and moisture barrier. Since the membrane is seamless and bonded to the substrate it won't leak water through holes or tears, and it won't flutter and compromise air barrier performance in the presence of air pressure differences or fluctuations, as do sheet goods³. The membrane is fully compatible with EIFS adhesives, and thus eliminates any need for mechanical attachment of insulation board, normally required over sheet goods. Thus thermal bridging is eliminated and negative wind load resistance, often limited by pull through of the EPS insulation board through the fasteners in mechanically attached systems, is no longer a limiting factor.

Performance criteria for EIFS—the next generation have been established by model code agencies. In particular stringent criteria for fluid applied membranes are established by SBCCI⁴ and ICBO⁵. The SBCCI criteria require the membrane to sustain a static head of 21.6 inches (55 cm) of water for a period of at least 5 hours before and after aging. They also require resistance to air infiltration not to exceed 0.06 cfm/ft² (0.305 L/s·m²) at a pressure differential across the wall section of 0.3 inches (7.6 mm) of water. ICBO acceptance criteria require no water leakage after exposure to cyclic wind loading followed by 75 minutes of water spray with simultaneous air-pressure differential that approximates a sustained 50 mph (80 km/h) wind. In essence, these performance criteria require the wall to be waterproof and resistant to air infiltration before the EIFS wall covering is put in place. They also require the membrane to be resistant to the affects of UV aging even though it will not be subjected to UV exposure while in service. This substantially exceeds the performance requirements for conventional water-resistive barriers prescribed in the code. Refer to Table I for a complete listing of performance criteria for EIFS—the next generation.

EIFS DESIGN AND DETAILING

Regardless of whether one chooses to design with a traditional Class PB EIFS or with EIFS—the next generation, a vital component for long term durability and life safety is construction detailing. "As much as

EIFS: THE NEXT GENERATION

90 percent of all water intrusion problems occur within 1 percent of the total building exterior surface area. The 1 percent of the structure's façade contains the terminations and transition detailing that all too frequently lead to envelope failures."⁶ With this in mind, design criteria and detailing considerations for EIFS are listed below:

1. **Wind Load**—design for maximum allowable system deflection, normal to the plane of the wall, of $L/240$. This is a basic requirement for stiffness of the supporting wall construction. The EIFS manufacturers code evaluation report and/or independent tests should be checked to determine design pressure limits.
2. **Moisture Control**—prevent the accumulation of water behind the EIF system, either by condensation or leakage into the wall construction, in the design and detailing of the wall assembly. This is accomplished in three ways:

- i.) by providing flashing above window and door heads, beneath window and door sills (Figure 4), at roof/wall intersections (Figure 5), decks, abutments of lower walls with higher walls, above projecting features, and at the base of the wall, such that water is directed to the exterior, not into the wall.

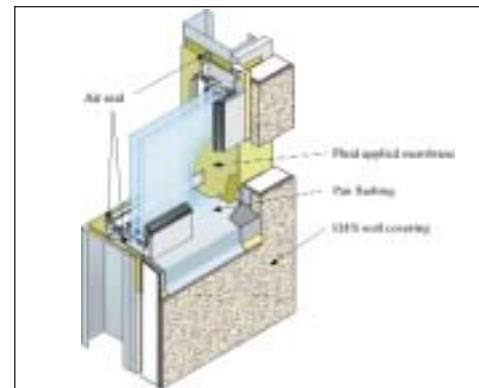


Figure 4. Sill flashing is provided beneath potential leak sources such as windows to direct water to the exterior, not into the wall assembly. The fluid applied membrane protects the rough opening. The inner seals beneath the window, at the back leg of the pan flashing, and along the jamb interface, function as air seals to reduce the effect of pressure differential, one of the driving forces of water intrusion, at seams in the construction.

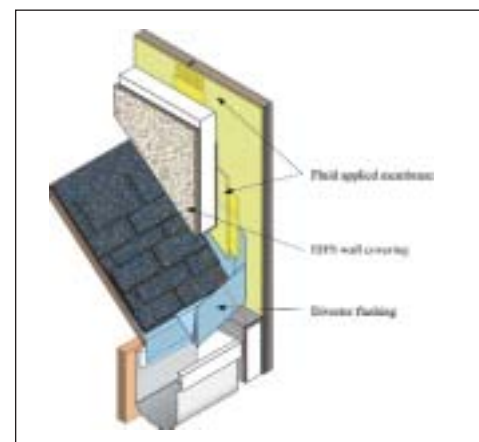


Figure 5—critical details such as roof/wall intersections must include diverter flashing that integrates with the exterior wall covering such that rain water is directed to the exterior, not into or behind the exterior wall covering.

ii.) by controlling air leakage in cold climates to prevent water vapor in moist air from condensing and being deposited inside the wall assembly. EIFS—the next generation includes an air barrier behind the EIFS on the supporting construction. Note, however, that air barrier continuity is necessary to prevent excess air leakage. Thus, adjoining components in the building envelope assembly—windows, doors, and roof membranes—must be connected to the EIFS air barrier. The effects of air tightness on mechanical ventilation requirements and indoor air quality should also be considered in the overall project evaluation.

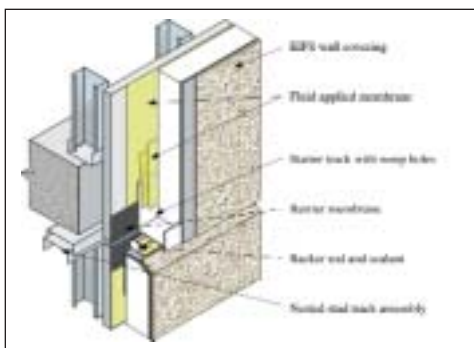


Figure 6. Expansion joints are required at floor lines in construction where floor line deflection is anticipated. In this case a nested stud in the structural frame assembly accommodates deflection. The EIFS wall covering must also include a joint to accommodate the movement. In wood frame construction joints are similarly required to accommodate anticipated movement caused by cross grain shrinkage of wood joists.

iii.) by minimizing the risk of condensation in the wall assembly caused by water vapor diffusion. In the event condensation is identified in the wall assembly, increasing the thickness of insulation will generally move the dew point outward to a safer location in the wall assembly or eliminate it altogether. In any event one should generally avoid the use of vapor retarders on the interior side of the wall in warm, humid climates. The vapor retarder has the effect of inhibiting drying in the event of incidental moisture intrusion, and can potentially cause damage to interior wall components should water vapor condense behind them. In general condensation has not been a significant source of moisture accumulation in EIFS clad walls. By far, the largest risk of water damage in walls is bulk water entry from rainfall and leaks associated with poorly designed or improperly constructed details.

3. **Impact Resistance**—EIFS impact resistance can be greatly enhanced by adding a layer of reinforcing mesh to the standard grade of mesh. Areas subject to abuse such as ground floors, entrances, columns at carports, etc., should receive the extra mesh layer to a minimum height of 6'-0" (1.8 m) above finished grade. Impact resistance is classified by EIMA as Levels 1-4, with 4 being the highest impact resistance level. Where additional impact resistance is required, contract drawings should indicate the locations on elevations.

4. **Color Selection**—select finish coat with a light reflectance value of 20 or greater.

Light reflectance is a relative measure of lightness of a color. The higher the number on a scale of 1-100 the lighter the color. The use of dark colors (lightness value of less than 20) is not recommended with EIF Systems that incorporate EPS. EPS has a service temperature limitation of approximately 160°F (71°C) and sustained exposure at this level or higher could result in deformation of the EPS and delamination of the EIFS coatings. Consideration should also be given to light reflective surfaces such as mirrored glass, or white concrete in full sun, which can reflect sunlight onto an EIFS wall surface and increase surface temperatures.

5. **Joints are required at the following locations in EIFS wall assemblies:**

- i.) where they exist in the substrate or supporting construction
- ii.) where the EIFS adjoins dissimilar construction or materials (Figure 7)
- iii.) where pre-fabricated panels abut one another
- iv.) where the substrate changes
- v.) at changes in building height or where other significant changes in building shape or structural system occur that could cause differential movement
- vi.) at floor lines in multi-level wood frame construction (Figure 6)

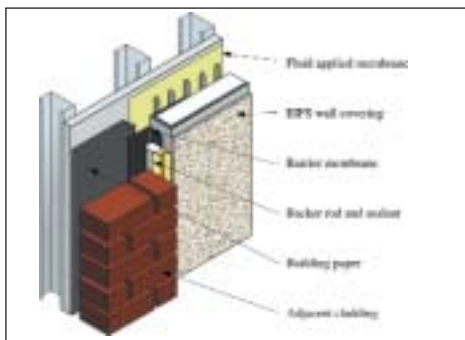


Figure 7. A two stage joint sealant design can be accomplished with a primary outer seal and secondary inner seal (barrier membrane). Note, the fluid applied membrane, although not shown behind the adjacent cladding in this case, can also take the place of the traditional moisture protection behind the adjacent cladding.

In addition to the above joint locations, wherever the EIFS terminates at abutting elements such as windows, doors, fixture penetrations, and dissimilar materials, a joint must be provided between the adjoining materials (Figure 4). Joints should be sealed with compatible backer rod and sealant that has been evaluated in accordance with ASTM C 1382⁷. Joint sealants tested in accordance with this method are subjected to harsh exposures that enable the specifier to verify joint performance under an array of environmental conditions. Consideration should also be given to joint designs with secondary moisture protection and drainage to the exterior (Figure 7). Such two stage joint designs can minimize maintenance associated with sealants, particularly on mid or high-rise structures.

6. **Grade Condition**—do not specify EIFS below grade (unless the system is especially designed for use below grade) or for use on surfaces subject to continuous or intermittent water immersion or hydrostatic pressure. EIFS is a finish material intended for use as a vertical above grade wall covering. It should be noted that in recent years some codes have prohibited the use of foam plastic below grade because of the potential for termites to migrate undetected behind foam plastic insulation.

7. **Trim, Projecting Architectural Features and Reveals**—all trim and projecting architectural features must have a minimum 1:2 [27°] slope along their top surface. All horizontal reveals must have a minimum 1:2 [27°] slope along their bottom surface. Slope should be increased for northern climates to prevent accumulation of ice/snow and water on the surface. Where the trim/feature or bottom surface of the reveal projects more than 2 inches (51 mm) from the face of the EIFS wall plane, the top surface should be protected with waterproof base coat to supplement the standard base coat. The use of trim and features that exceed the maximum allowable thickness of EPS permitted by code (typically 4 inches [100 mm]) should be avoided. Periodic inspections and increased maintenance may be required to maintain the surface integrity of EIFS on weather exposed sloped surfaces. Therefore limit projecting features to easily accessible areas and limit total area to facilitate maintenance and to minimize the maintenance burden that can be associated with such features.

Lastly, for large weather exposed projecting features such as ledges or cornices, the feature should be built out with framing or other structural support and protected with metal coping or flashing.

8. **Fire Protection**—for Types I, II, III and IV construction do not use foam plastic in excess of 4 inches (100 mm) thick unless it is specifically recognized in the EIFS manufacturers code evaluation report or approved by the code official. Where a fire-resistance rating is required use EIFS over an existing rated assembly and refer to the manufacturer's applicable evaluation report for limitations that may apply. EIFS is considered not to add or detract from the fire-resistance of a rated assembly. ■

CONCLUSION:

EIFS have been in use worldwide for nearly half a century, and in North America for more than 30 years. They offer excellent thermal and moisture protection and a wide variety of aesthetic possibilities for exterior walls at an affordable cost. When choosing EIFS as an exterior wall covering it is important to consider code compliance, which can generally be verified with the manufacturer's model code evaluation report. EIFS—the next generation includes a fluid applied membrane material applied to the substrate as an air and moisture barrier. It affords additional levels of moisture protection and air infiltration resistance at a modest cost increase without limiting aesthetic design choices. Criteria are in place that measure the performance of these systems and demonstrate that they exceed the performance of traditional moisture protection prescribed in model codes. An essential component for long term durability of EIFS and other exterior wall coverings is sound design and construction detailing.

TABLE 1: EIFS—THE NEXT GENERATION PERFORMANCE SPECIFICATIONS

TABLE 1A—AIR/MOISTURE BARRIER PERFORMANCE		
TEST	METHOD	CRITERIA
1. Water Penetration Resistance	AATCC 127(Water Column)	Resist 21.6 in (55 cm) water for 5 hours before and after aging
2. Water Penetration Testing	ASTM E 1233 / ASTM E 331	No water at exterior plane of sheathing, (exterior gypsum, Dens-Glass Gold, plywood, OSB) after 10 cycles @ 80% design load and 75 minutes water spray at 6.24 psf (299 Pa) differential
3. Water Resistance Testing	ASTM D 2247	Absence of deleterious effects after 14 day exposure
4. Water Vapor Transmission	ASTM E 96Method B (Water Method)	Measure
5. Air Leakage	ASTM E 283	<0.06 cfm/ft ² (0.305 L/s·m ²)
6. Structural Integrity	ASTM E 330	2 inches (51 mm) water pressure (positive & negative) for 1 hour.
7. Dry Tensile Strength	ASTM D 882	20 lbs/in (3503 N/m) minimum before and after aging
8. Pliability	ASTM D 522	No cracking or delamination using 1/8" (3 mm) mandrel at 14°F (-10°C) before and after aging
9. Surface Burning	ASTM E 84	Flame Spread: <25 Smoke Developed: <450
10. Tensile Adhesion	ASTM C 297	>15 psi (103 kPa)

TABLE 1B—EIFS WEATHER RESISTANCE AND DURABILITY PERFORMANCE		
TEST	METHOD	CRITERIA
1. Accelerated Weathering	ASTM G-23	No deleterious effects at 2000 hours when viewed under 5x magnification
	ASTM G-53	No deleterious effects at 2000 hours when viewed under 5x magnification
2. Freeze/Thaw Resistance	EIMA 101.01 (Modified ASTM C-67)	No deleterious effects at 60 cycles
3. Water Penetration	EIMA 101.02 (Modified ASTM E 331)	No water penetration beyond the plane of the base coat/EPS board interface after 15 minutes at 6.24 psf (299 Pa) or 20% of design wind pressure, whichever is greater
4. Drainage Efficiency	EIMA 200.02	90% minimum
5. Tensile Adhesion	EIMA 101.03 (modified ASTM C-297)	No failure in the adhesive, base coat, or finish coat. Minimum 5 psi (34 kPa) tensile strength before/after accelerated weathering and freeze/thaw exposure
6. Water Resistance	ASTM D-2247	No deleterious effects* at 14 day exposure
7. Salt Spray	ASTM B-117	No deleterious effects* at 300 hours
8. Abrasion Resistance	ASTM D-968	No cracking or loss of film integrity at 528 quarts (500 L) of sand
9. Mildew Resistance	ASTM D-3273	No growth supported during 28 day exposure period

*No deleterious effects: no cracking, checking, crazing, erosion, rusting, blistering, peeling or delamination

TABLE 1C—EIFS COMPONENT PERFORMANCE		
TEST	METHOD	CRITERIA
1. Alkali Resistance of Reinforcing Mesh	EIMA 105.01	Greater than 120 pli (21 dN/cm) retained tensile strength
2. Physical properties and Requirements for EPS Board	ASTM C-578	Refer to EIMA Guideline Specification for Expanded Polystyrene (EPS) Insulation Board
3. Requirements for Rigid PVC Accessories	ASTM D-1784	Meets cell classification 13244C

TABLE 1D—EIFS AND AIR/MOISTURE BARRIER FIRE PERFORMANCE		
TEST	METHOD	CRITERIA
1. Fire Endurance	ASTM E119	Maintain fire resistance of existing rated assembly
2. Intermediate Scale Multi-Story Fire Test	UBC Standard 26-4 or 26-9	1. Resistance to vertical spread of flame within the core of the panel from one story to the next 2. Resistance to flame propagation over the exterior surface 3. Resistance to vertical spread of flame over the interior surface from one story to the next 4. Resistance to significant lateral spread of flame from the compartment of the fire origin to adjacent spaces
3. Radiant Heat Ignition	1996 National Building Code, Section 1406.0 (NFPA 268) 1997 Standard Building Code, Section 2603.4-7 (NFPA 268)	No ignition @ 20 minutes No ignition @ 20 minutes

TABLE 1E—COMPONENT FIRE PERFORMANCE		
TEST	METHOD	CRITERIA
Surface Burning	ASTM E 84	Insulation board and reinforced coating system shall each have a flame spread of 25 or less, and smoke developed of 450 or less

TABLE 1F—IMPACT RESISTANCE PERFORMANCE		
TEST	METHOD	CRITERIA
1. Impact Resistance	EIMA 101.86	Level 1: 25-49 in-lbs (2.83-5.54 J) Level 2: 50-89 in-lbs (5.65-10.1 J) Level 3: 90-150 in-lbs (10.2-17 J) Level 4: >150 in-lbs (>17 J)

TABLE 1G—STRUCTURAL PERFORMANCE TEST		
TEST	METHOD	CRITERIA
1. Wind Load	ASTM E-330	Withstand negative and positive wind loads required by prevailing building code

NOTES

1. EIMA, EIFS Industry Members Association. This acronym for the EIFS industry trade association stood for Exterior Insulation Manufacturers Association in 1981.
2. *International Building Code*, (Falls Church: International Code Council, 2002), pp. 627–630.
3. Bosack, Edward J. III, and Burnett, Eric F.P., "The Use of Housewrap in Walls: Installation, Performance and Implications," Research Series Report NO. 59, (University Park: Pennsylvania Housing Research Center, 1998), pp. 14–20, 41–42.
4. "Southern Building Code Congress International Public Safety Testing and Evaluation Services, Inc. Evaluation Guide 119, Evaluation Guide on Floor, Wall, and Roof Systems (Testing for Moisture Protection Barriers)," (Birmingham: Southern Building Code Congress International Public Safety Testing and Evaluation Services, Inc., 1995), pp. 1--2.
5. "International Conference of Building Officials Evaluation Services, Inc. Acceptance Criteria 24, Acceptance Criteria for Exterior Insulation and Finish Systems," (Whittier: International Conference of Building Officials Evaluation Services, Inc., 1999), pp. 5-6.
6. Kubal, Michael, T., *Waterproofing the Building Envelope*, (McGraw-Hill, Inc., 1993), pp.4.
7. "American Society of Testing and Materials C 1382, Test Method for Determining Tensile Adhesion Properties of Sealants When Used in Exterior Insulation and Finish Systems (EIFS) Joints," (West Conshohocken: American Society of Testing and Materials, 1997).

LEARNING OBJECTIVES

- Compare traditional EIFS to EIFS/the nextgeneration.
- Describe the main drawback of EIFS/with traditional moisture protection
- Identify construction detailing to avoid water intrusion problems in EIFS.

INSTRUCTIONS:

Refer to the learning objectives above. Complete the questions below. Then answer test questions and fill out the reporting form on page 228 and submit it or use the Continuing Education self report form on *Record's* web site - www.architecturalrecord.com - to receive one AIA/CES Learning Unit including one hour of health safety welfare credit.

QUESTIONS:

Q: 1. Class PB EIFS does not contain which of these?

A: a. insulation board; b. fluid applied membrane; c. reinforcing mesh; d. base and finish coat

Q: 2. What is the primary purpose of an evaluation report?

A: a. It verifies that a system is equivalent to the construction materials/methods of the code.; b. It verifies that a system or product has passed a performance test.; c. It verifies the durability of a system or product.; d. It verifies the structural and fire performance of a system or product.

Q: 3. What is a limitation of traditional EIFS?

A: a. They did not typically incorporate moisture protection materials behind the EIFS on the substrate.; b. They did not use a fastening device.; c. The heated up to dangerous temperatures.; d. They were subject to cracking like conventional stucco.

Q: 4. Which is not an important construction detail or design criteria for EIFS?

A: a. Control joints for expansion and contraction like stucco or masonry veneer.; b. Deflection from wind load.; c. Light reflection.; d. Joint design for drainage to the exterior.

Q: 5. Which is true of EIFS/the next generation?

A: a. It requires mechanical fasteners.; b. It limits wind load resistance.; c. It incorporates a moisture protection on the substrate.; d. It is used primarily below grade.

Q: 6. What percent of water intrusion problems occur within one percent of the building exterior?

A: a. 90%; b. 80%; c. 50%; d. 40%

Q: 7. Which is true of traditional EIFS?

A: a. It does not require adhesive or mechanical fasteners to attach it to the substrate.; b. It is polymer based.; c. It is difficult to install.; d. It is used primarily below grade.

Q: 8. What are the advantages of a fluid applied membrane?

A: a. It flutters in the wind to allow air into the system.; b. It accelerates thermal bridging.; c. Its seams are lapped to prevent moisture penetration.; d. It is bonded to the substrate to prevent tears.

Q: 9. Which performance criteria is required for EIFS/the next generation?

A: a. The wall must be waterproof before the EIFS wall covering is put in place.; b. The wall must be resistant to air infiltration before the the EIFS wall covering is put in place.; c. The fluid applied membrane must be resistant to the affects of UV aging.; d. All of the above.

Q: 10. The specification for minimum drainage efficiency of EIFS/the next generation is which?

A: a. 60%; b. 70%; c. 90%; d. 100%



FOR MORE INFORMATION ON EIFS NEXT, PLEASE CONTACT:

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