



Application Fast Facts: EIFS



Did you know that Dow products are used to help the multiple layers of EIFS stay bound together and withstand the rigors of the environment?

What are EIFS?

EIFS (Exterior Insulation and Finish Systems) are proprietary, multi-layered exterior wall systems that are increasingly popular with:

- Architects for flexibility: colors, textures, shapes, designs.
- Building/home owners for stunning appearance.
- Builders for cost-effectiveness.
- Everyone for superior energy efficiency – reducing air infiltration by up to 55 percent compared with brick or wood construction.

How are EIFS built?

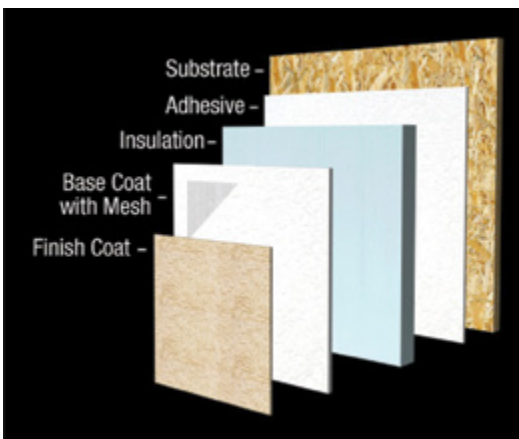
EIFS consist of five or six basic components:

- Polystyrene or polyisocyanurate foam insulation board.
- An adhesive and/or mechanical attachment of insulation to the building substrate.
- Fiberglass mesh for added strength.
- A base coat applied over the insulation for water resistance.
- An attractive, colorfast, crack-resistant finish coat, typically using 100% acrylic technology.
- Many EIFS now include a water resistive barrier between the substrate and adhesive.

How does Dow Construction Chemicals support EIFS manufacturers?

Dow Construction Chemicals offers EIFS manufacturers a wide range of acrylic latex polymers, cellulosic ethers and redispersible latex powders that enhance the performance of:

- The adhesives that fasten the insulation board to the building substrate.
- The base coat, which holds the reinforcing fiberglass mesh in place and forms the critical continuous air-tight/water-resistant shell or barrier.
- The exterior finishes, which must be durable in all weather conditions.
- The elastomeric water resistance barrier coatings needed where building codes require drainage systems.



Many of our products are specifically designed for EIFS applications, such as RHOPLEX™ EI-2000 acrylic latex polymer, which can be used to improve performance properties in the adhesive, the base coat and the finish coat. This product also provides excellent cement workability at high temperatures. In summary, our products help to:

- Adhere the entire EIFS system.
- Provide resistance to water, ultraviolet light, dirt pick-up and cracking.
- Maintain the continuous air-barrier shell.
- Provide alkali-swellable thickening as needed.
- Enable long high-temperature pot life in cement formulations.

What are the keys to effective, durable EIFS?

Sound design and expert installation are essential. Architects and builders should check the EIFS manufacturer's reputation, warranty and installation training/inspection programs. Outstanding adhesion to a variety of surfaces is especially important throughout an the systems. The base coat must provide water-resistant properties, while the exterior finish must be durable, crack resistant and colorfast. If there is a water resistive barrier, it must have excellent water resistance and durability properties.

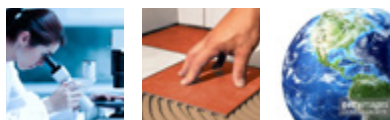
What makes EIFS so energy efficient?

According to the EIFS Industry Members Association: "By insulating outside the structure, EIFS reduce air infiltration, stabilize the interior environment and reduce energy consumption. By contrast, traditional 'between-the-studs' insulation, no matter how thick, leaves 'thermal breaks'— gaps where heat and cold pass more freely between the outdoors and the space within."

Where can I see EIFS?

Everywhere! In the U.S. today, EIFS account for nearly 30 percent of the commercial exterior wall market. They are even more prevalent in Europe, where they originally helped retrofit war-torn structures after World War II.

Better Building Starts Here



In the U.S.

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