



Protecting Your Business From Wind

FEDERAL EMERGENCY MANAGEMENT AGENCY

ARE YOU AT RISK?

If you aren't sure whether your business is at risk from hurricanes or tornadoes, check with your local building official, city engineer, or planning and zoning administrator. They can tell you whether you are in an area where these high-wind events occur. Also, they can usually tell you how to protect your business from high winds.

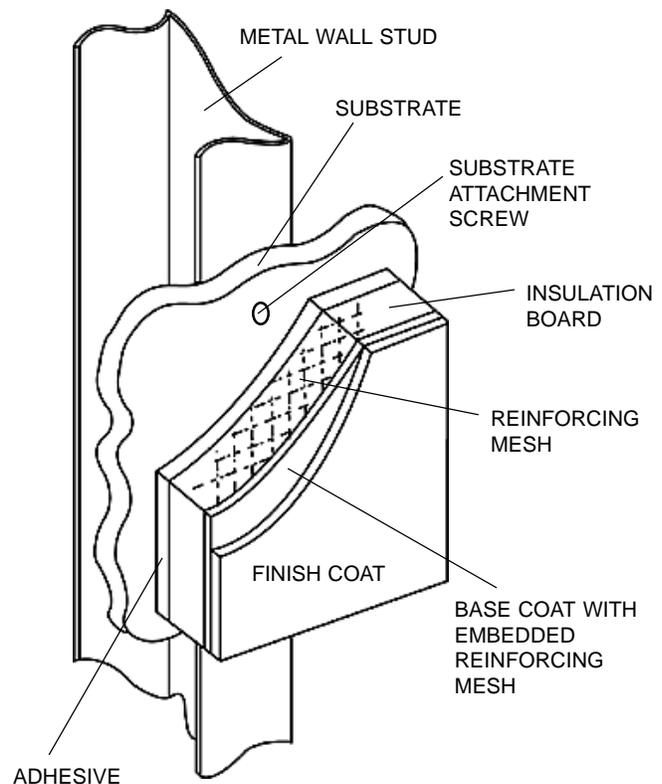
WHAT YOU CAN DO

Protecting your business from high winds can involve a variety of actions, from inspecting and maintaining your buildings to installing protective devices. Most of these actions, especially those that affect the exterior shell of your buildings, should be carried out by qualified maintenance staff or professional contractors licensed to work in your state, county, or city. For buildings with Exterior Insulation Finishing System (EIFS) walls, a type of wall often used for commercial buildings, one example of wind protection is inspecting and maintaining the walls.

MAINTAIN EIFS WALLS

An EIFS wall typically consists of several layers of materials sandwiched together into a single panel, which is attached to a substrate mounted on the wall studs (see figure). The exterior of an EIFS wall is water-resistant, but the wall can be weakened by moisture that becomes trapped behind the wall. The source of this moisture is usually leaks around doors and windows and where the wall joins the roof. Once an EIFS wall has been weakened in this way, it is more likely to be torn off or penetrated by high winds and windborne debris. If wind enters a building, the likelihood of severe structural damage increases, and the contents of the building will be exposed to the elements.

You should periodically inspect your EIFS walls, particularly the flashing where the walls meet the roof and all seals around doors, windows, and any objects that pass through the wall, such as utility lines. Make sure that the flashing and seals have been properly installed and are not damaged.



CUTAWAY VIEW OF TYPICAL EIFS WALL PANEL AND SUBSTRATE MOUNTED ON A METAL WALL STUD

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Maintain EIFS Walls

TIPS

Keep these points in mind when maintain your EIFS walls:

- ✓ A licensed contractor can test EIFS walls for moisture content and advise you on repairs.
- ✓ EIFS walls should be installed only by experienced contractors who have completed a manufacturer's training program. Contact the manufacturer or call the EIFS Industry Members Association (EIMA) at 1-800-294-3462 for more information.
- ✓ Most EIFS walls are susceptible to damage from windborne debris; however, impact-resistant walls have been developed by some EIFS manufacturers. Ask manufacturers whether their walls meet the wind load and impact standards established for your area. Your local building official can advise you about these standards.
- ✓ Ask you local building official about state and local code restrictions on the use of EIFS walls. For example, the State Building Council in North Carolina requires that all residential construction that uses EIFS walls include provisions for draining any water that penetrates the walls.
- ✓ EIFS walls have had mixed degrees of success in different parts of the country. Ask you local building official about the performance of EIFS walls in your area.
- ✓ EIFS manufacturers provide different types of fasteners and adhesives for buildings designed for high wind loads. Ask the EIFS manufacturer and installer what the highest allowable wind speed is for your building and what you can do to help the walls withstand even higher wind speeds.

ESTIMATED COST

EIFS wall costs vary; however, the cost of a typical EIFS wall is approximately \$4 - \$6 per square foot.

OTHER SOURCES OF INFORMATION

What are EIFS? EIFS Industry Members Association
<http://www.eifsfacts.com>

Check It Out, Here are the most common trouble spots and how to check them out. R. Schwolsky, Builder Magazine, March 1996
<http://www.builder.hw.net/news/1997/eifs/eifs3961.htx>

To obtain copies of FEMA documents, call FEMA Publications at 1-800-480-2520. Information is also available on the World Wide Web at <http://www.fema.gov>.