

# POLYMERIC SIDING PRODUCTS STAND UP TO THE STORM

In September 2017, Hurricane Irma hit the southwestern area of Florida. Shortly after, the Vinyl Siding Institute team visited neighborhoods built with polymeric claddings to observe the impact and determine how the exterior cladding held up against the Category 2 storm.

## Hurricane Irma—Quick Facts About the Storm

Beginning as a Category 5 storm in the open Atlantic, the hurricane broke many records in size, intensity, and duration.

- Damage totals of more than \$64.2 billion
- Wind speeds up to 185 mph
- Lasted nearly one month in late summer 2017

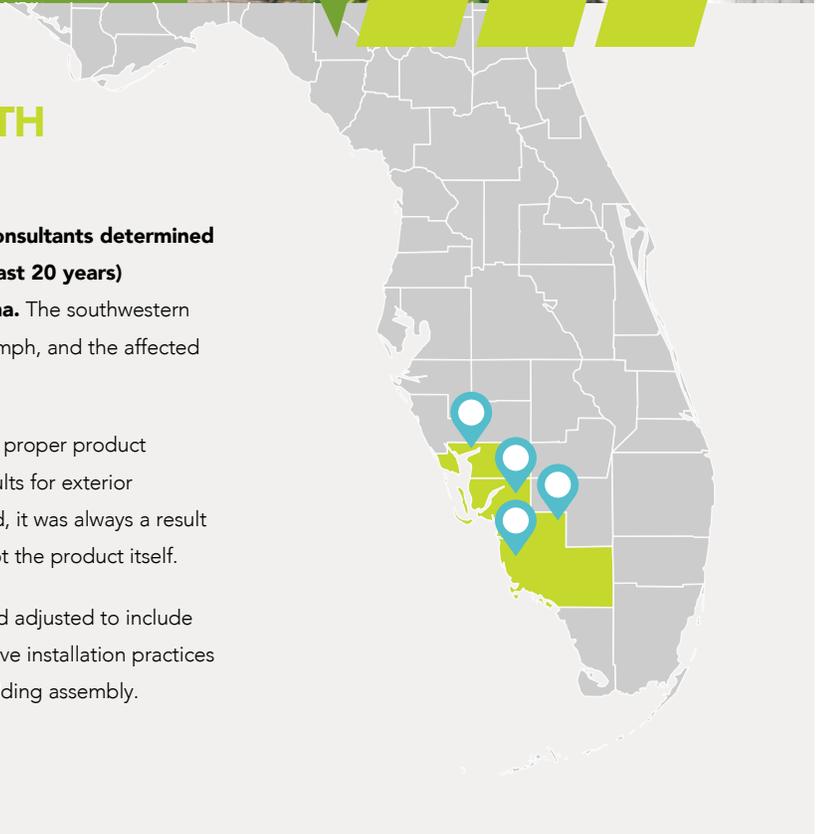


## OBSERVING THE AFTERMATH OF HURRICANE IRMA

**Field inspections conducted by the VSI team and their consultants determined that modern polymeric siding products (installed in the last 20 years) performed successfully as designed during Hurricane Irma.** The southwestern coastline of Florida was slammed with wind gusts up to 130 mph, and the affected neighborhoods suffered no significant loss.

Despite the lack of extreme damage, proper installation and proper product specification are always critical when ensuring successful results for exterior cladding products. When and if product failure was observed, it was always a result of improper installation or incorrect product specification, not the product itself.

As a result, current I-Code provisions should be reviewed and adjusted to include specification for fascia and soffit installation. Better prescriptive installation practices can help with overall performance during this part of the building assembly.





## KEY FIELD OBSERVATIONS

- When installed properly, modern polymeric siding designed for high wind/hurricane areas withstood the hurricane force winds.
- Modern standards and testing verification, coupled with modern code requirements, have contributed to successful product performance.
- Improper installation methods can lead to product blow-off.
- Failure of soffit and fascia is an issue that has been partially addressed and continues to be an area that warrants further research. The new I-Code provisions requiring soffit fastening at wall and fascia is part of the solution.

## CONCLUSIONS AND RECOMMENDATIONS

### PRODUCT SPECIFICATION

- The steps that have been taken by the industry to ensure a clear understanding of product design pressure ratings have helped clarify the appropriate polymeric siding specified for high wind areas and avoid products being installed not designed for high wind areas.
- Use of siding not properly rated for the wind conditions of the location and building type was observed to have a greater likelihood to be blown off and result in failure. The industry has taken steps to ensure that wind load design pressure rating information is available for every certified siding product.
- Specifiers, installers and code officials need to work toward the goal of making sure the siding rating matches the requirements for the location and building.

### SOFFIT AND FASCIA

- Building codes generally lack any specification around fascia installation. Failure of fascia is an issue and can be a contributing factor to the failure of soffit. Further research is needed to update building codes around fascia installation.
- Failure of soffit, often associated with fascia blow-off, continues to be a common problem, suggesting research is needed to identify sources of vulnerability.
- Changes to the building code require fastening soffit at both the fascia and wall ends. This may be adequate for performance in high wind areas but should be studied more closely. Florida codes should be updated to explicitly require such fastening.
- The failure of fascia can lead to the failure of soffit. Soffit/fascia systems should be studied closely and system specifications should be sought to develop installation guidelines and regulation.

### INSTALLATION

- Installation and performance of the product is extremely important. Improperly installed product can fail and lead to building damage.
- Proper starter strips, matched to the shape of the lock of the siding product, must be used at the lowest course. Failure to secure the lowest edge, such as simply inserting it into a J-channel, can lead to failure.

*All in all, correct installation is directly correlated to the overall performance of polymeric siding products.*

Find out more about the performance benefits of vinyl and polymeric siding products.

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