Case Study

CertainTeed’s Moisture-Managing Building Materials a Perfect Match for Post-Storm Rebuild

The Sunset Green Home in Long Island, New York – once a charming 1940s cottage resting five feet above sea level – was damaged by Hurricane Irene in 2011 and decimated by Hurricane Sandy in 2012. In 2015, however, the tide is turning as the home is being rebuilt as the first certified LEED® Platinum home in Long Island.

According to homeowner Kim Erle, who is also a LEED AP and team leader on the sustainable, energy-efficient renovation, moisture management was a top-of-mind issue as blueprints were drawn and building materials specified. The issue took precedence for good reason, too. She says mold was visibly rampant in the walls and floorboards when the remains of the coastal home were demolished. Erle believes this mold was there long before Hurricane Sandy ever took out the house, likely due to wet coastal conditions and inadequate construction.

SMARTBATT’s intelligent approach to in-the-wall moisture management lets the walls “breathe” and helps reduce the potential for mold and mildew growth in homes, making it a smart match for the coastal construction project.

SMARTBATT is the first kraft-faced fiber glass batt insulation to contribute to healthier homes by intelligently managing moisture. Unlike traditional polyethylene vapor barriers that can only block moisture one way, or kraft-faced insulation that can only retard moisture, SMARTBATT adapts its permeability based on humidity levels in the wall cavity to block indoor moisture from entering when humidity in the cavity is low and allows moisture to escape when it senses high humidity that needs to be released. SMARTBATT’s intelligent approach to in-the-wall moisture management lets the walls “breathe” and helps reduce the potential for mold and mildew growth in homes, making it a smart match for the coastal construction project.

“SMARTBATT is the right product for the Sunset Green Home because it is good for buildings near water where humidity is an issue,” Erle said, noting that SMARTBATT has been installed in the air conditioned main house as well as the unconditioned pool house. “To the extent a smart vapor retarder can work for us to dry out the walls when they do get moisture in them and then to keep them dry, we are thrilled.”
In addition, Erle specified CertainTeed’s FortiCel™ Mold Prevention Spray and GlasRoc® Diamondback® Tile Backer because of their ability to also help minimize opportunity for mold growth and proliferation.

These specified moisture-managing materials are an integral part of Erle’s sustainable reconstruction project, which also features CertainTeed’s AirRenew® Essential Indoor Air Quality (IAQ) gypsum board and the CertaSpray® all-in-one insulation air sealing system to further the project’s overall effort to create an environmentally sound and enduring home.

The Sunset Green Home will be under construction through June, at which time the family hopes to move in for the summer. Erle is especially pleased to know the home will be a more healthy space for her family to live.

“I have one child allergic to everything, and to know I have helped to prevent mold from growing in my walls gives me peace of mind,” Erle said.

Learn more about moisture-managing building materials at www.certainteed.com/insulation.

“I have one child allergic to everything, and to know I have helped to prevent mold from growing in my walls gives me peace of mind.”

Remains moisture tight in winter when humidity in the cavity is low.

Increases permeability in summer to let moisture escape when needed.