



## Spray Polyurethane Foam Can Help Make Buildings Stronger, More Durable

Contact: Marie Francis (202) 249-6514 

Email: [marie\\_francis@americanchemistry.com](mailto:marie_francis@americanchemistry.com)

**WASHINGTON (September 12, 2013)** – With the National Oceanic and Atmospheric Administration (NOAA) continuing to predict above-normal activity for the 2013 Atlantic hurricane season, many coastal homeowners and other building owners are looking for ways to protect their properties from wind and water damage. While spray polyurethane foam's (SPF) insulation and air sealing benefits are well known, many building owners may be unaware of its other properties that can help strengthen buildings and make them more durable.

“Hurricane season is underway and building owners along the Atlantic and Gulf Coasts and other areas affected by severe storms should take a look at spray foam's structural benefits,” said Peter Davis, chair of the [Spray Foam Coalition](#), an organization that is part of the Center for the Polyurethanes Industry of the American Chemistry Council. “Closed-cell spray foam can improve a building's strength and durability in several ways.”

### *Strengthening Homes*

When applied to the interior side of a roof, closed-cell SPF can increase a building's resistance to wind uplift during severe storms. A study conducted at the University of Florida in 2007 found that applying closed-cell SPF under a roof deck provides up to three times the resistance to wind uplift for wood roof sheathing panels compared to a conventionally fastened roof.

Building studies conducted in 1992, 1996 and 2007 have also shown that applying closed-cell SPF to wall cavities can increase racking strength (i.e., resistance to horizontal forces like high winds) versus those without SPF.

Closed-cell SPF itself can also resist water damage. The material can be cleaned and dried, which is why the Federal Emergency Management Agency (FEMA) has classified closed-cell SPF as an insulation material that can resist flood damage. Using SPF can provide better moisture control to help resist the formation of mold in walls, and under floors and ceilings.

### *Making Roofs More Durable*

As a roofing material for flat or low-sloped roofs, closed-cell SPF conforms and adheres to the surface on which it is sprayed. When applied to the roofing substrate, SPF is seamless and serves as its own flashing over joints, which can eliminate the ability of water to seep through fasteners and seams. Spray foam can be applied in a sloped manner to allow water to easily drain off.

When the National Institute of Standards and Technology (NIST) examined buildings following Hurricane Katrina in Pascagoula, Miss., it found that buildings with SPF roofs performed remarkably well. The SPF kept the roofs intact and prevented moisture from entering the buildings, and it also protected the roofs from hail and debris. Only one of the buildings with an SPF roof had notable damage and, in that case, it was minor, affecting a mere one percent of the roof.

For more information about SPF and its many benefits, visit [www.whysprayfoam.org](http://www.whysprayfoam.org).