SPRAY POLYURETHANE FOAM (SPF)
FOR ROOFING

When it comes to the roof over your head, discover why you can count on SPF.
**DURABLE BY DESIGN**

With a lifecycle performance that can exceed 30 years, SPF roofing systems offer quality that’s built to last. From high winds, rain, snow and hail to corrosion and foot traffic, SPF’s unique application process and adhesion properties help deliver long-term, high-performance results.1

SPF roofing systems are referred to as “self-flashing” because when properly applied, the durable foam conforms and adheres to a variety of shapes and substrates, forming a seamless, monolithic barrier.3

What does that mean for the roof over your head?

1. Reduced ponding: SPF accommodates unique roof designs and can be applied in various thicknesses to create a positive slope and improve drainage on flat roofs.2

2. Reduced leakage: SPF offers coverage around seams, penetrations, parapet walls, HVAC curves, vents and skylights – helping avoid water-leakage problems.

**A BETTER SOLUTION**

Roofs made with SPF can provide long-term quality, while also helping the environment by reducing resource expenditures and minimizing the use of landfill capacity. SPF roofs are energy efficient, minimizing the environmental impact of buildings.

**Reroof, Recycle and Reduce**

When considering a roof, it is inevitable to think about the repair process if it is damaged. SPF roofs do not typically have to be removed during repair, unlike many other materials. Once the damage is identified, the area can usually be re-foamed without ever having to remove the roof.

Tearing off roofs and replacing them completely is not only resource intensive, but it can also increase construction waste in landfills. Fortunately, in addition to offering an excellent choice for new construction, SPF can also be applied to most existing roofs without the need for tear-off, which extends a roof’s life. These attributes simplify repairs, reduce waste in landfills and reduce repair time compared to some other replacement techniques. 

*Calculation courtesy of SWD Urethane 5

**No seams or fasteners.**

Concrete separators can be completely covered by foam, reducing thermal bridging.

**NO PONDING** spray foam roofing systems provide proper slope to drain with minimal cost of material and labor.

**SPRAY FOAM** is self-flashing and provides seamless coverage around HVAC curbs, vents and skylights.

**ENERGY EFFICIENCY**

SPF roofs provide an insulating barrier for homes and buildings. SPF roofs can significantly reduce air leakage and heat transfer, saving energy otherwise used to heat and cool buildings and thus decreasing greenhouse gas emissions. SPF’s insulating properties make it one of the highest performers among any roofing materials.

Additionally, “cool roofs” made with SPF reflect the sun’s energy to mitigate urban heat island effects and keep buildings cool.6 Cool roofs help to minimize the effects of climate change because they reduce energy use and therefore power-plant emissions, and they decrease the heat trapped in the atmosphere by reflecting more sunlight back into space.

**Resisting Wind Uplift**

SPF roofing systems offer exceptional wind resistance because their lightweight nature enables them to withstand winds of tropical systems in Category 4 hurricanes (130-156 mph).4

In one study by a researcher at the University of Florida, a roof deck insulated with closed-cell SPF demonstrated an ability to withstand wind speeds found in category 4 hurricanes (130-156 mph).6

**SPF Advantage:** SPF’s seamless and fluid application method helps the material grip and protect the roof deck, and minimize gaps and edges for wind to get trapped beneath causing structural flaws.

**Construction Waste for a 40,000 sq ft Roof Over 30 Years***

<table>
<thead>
<tr>
<th>Roofing System</th>
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*Data compares lifespan of built-up roof with membrane filled with leaking air and spray foam roofing systems.360,800 lbs represent traditional roof tear-off at end of typical system lifespan.

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Long-term Savings
SPF roofing systems deliver energy efficiency and maintenance savings year after year, which helps offset initial investment. Moreover, energy-efficiency tax credits or other incentives may also be available for your project, making the use of SPF even more attractive.

Professional Installation
Trained, professional SPF installers can help you select the right product and communicate the necessary safety precautions. The SPF industry trains professionals on the proper installation techniques, and third-party organizations like the Spray Polyurethane Foam Alliance offer installer certification programs. When professional installation is needed, ask your SPF contractor about his or her training and certification credentials for more informed decision-making.

Safety First
The versatility and unique performance attributes of SPF products are created onsite. SPF is applied as a liquid that quickly expands to form a cured foam insulation. Projects of many sizes and types can benefit from SPF. Installation practices and requirements can vary depending on the project type and SPF product used. Always consult with a knowledgeable authority or SPF professional to understand responsible installation practices for your project.

Endnotes
4. A 2007 study conducted by Dr. David Prevatt at the University of Florida’s Department of Civil and Coastal Engineering examined closed-cell SPF’s ability to increase the structural integrity of roof assemblies in high wind events like hurricanes.
5. Calculation courtesy of SWO Urethane
7. Del E. Webb School of Construction at Arizona State University
10. The SPF industry maintains an extensive library of products stewardship information and helpful practices for the safe handling and use of products. Visit www.sprayfoam.org for more information.