

Silicone & Spray Polyurethane Foam – A Sustainable, Efficient and Cost-Effective Roofing System

What Are The Advantages of a Roofing System Made With a Silicone Membrane and a Spray Polyurethane Foam (SPF) Base?

Spray Polyurethane Foam is a proven roof insulation currently in use on thousands of structures around the world. SPF offers a long list of benefits:

Seamless

SPF forms a seamless, monolithic, insulated roofing system. It has no joints or seams that often allow water and air to pass through the roofing system into the building structure. Whether a roof is 10,000 square feet or 100,000 square feet – or larger – it will have no seams. It requires no mechanical fasteners, which can also be a point of failure in roofing systems.

Watertight

Polyurethane foam is made of billions of closed cells that resist the penetration of water and vapors. It must, however, be protected by an elastomeric coating.

Eliminates Flashing Leaks

Because SPF conforms to the substrate and is a seamless system, it is ideal for flashing parapet walls, roof penetrations and roof-mounted equipment, including vents, pipes, stacks, HVAC units, skylights and cooling towers. Many roof leaks are caused by faulty flashings. SPF is virtually self-flashing and solves the problem.

Eliminates Ponding Water

In re-roofing applications, ponding of water may be eliminated by adding an increased thickness of polyurethane foam in low areas. Building up the low areas and sloping the roof so that it drains properly will eliminate ponding water and the additional load factor that is caused by water accumulation. Robotic roof application equipment featuring WDG's AutoSlope roof tapering technology assures precise foam application to create the ideal taper for maximum effective drainage.

Lightweight

The SPF system is an ideal solution for re-roofing projects, as it is often possible to apply over an existing built-up roof without removing it.

Strong, Flexible, Durable

SPF is very strong and will not sag, but is also flexible enough to allow for the normal expansion and contraction of a structure, while maintaining the ability to protect it from the outside elements. It is chemically stable and resistant to attack by mildew and fungi and non-nutritive, but must be protected from sunlight by a UV-resistant elastomeric membrane.

Beyond the features of the material, SPF offers other benefits, including:

Ease of Application

A Spray Polyurethane Foam roof can be applied in a relatively short amount of time with little or no disruption of building operations. It's often possible to apply an SPF roof over an existing built-up roof without removing it, saving time, labor and disposal costs.

Versatility

An SPF system can be used on both new and replacement roofs, whether flat, pitched, saw-toothed, domed or having unusual slopes or configurations. The spray application also makes it ideal for use on tanks, freezers, coolers, piping, ductwork and other building features.

Lower Costs

SPF roofing usually costs less to install than other roof systems because tear-off of the exterior roof is not usually required.


Ease of Maintenance

Minor repairs or modifications to a polyurethane system can be made by in-house maintenance personnel at a minimal cost.

For more information, visit www.wdgsilicones.com
300 Commerce Drive • PO Box 646
LaGrange, OH 44050 U.S.A.
440.355.4682 • 866.924.4585 • fax 440.355.4276

WDG Roof-to-Roof (RZR™) Process, Patent Pending.

©2007 West Development Group

 Printed on Recycled Paper



Leading the Industry in Sustainable Roofing Products and Practices

system 14™

The Only Total Silicone Roof
That Makes Total Ecological Sense

High R-value

R-value is the measurement of thermal resistance to heat flow. A higher R-value indicates greater insulating effectiveness. The type of material, its density and its thickness are all factors in determining R-value. SPF has an R-value of approximately +/- 6.25 per one inch of thickness enabling it to provide more thermal resistance with less material than other roof materials.

Plus, because an SPF roof system is seamless and is covered with a reflective elastomeric silicone coating, it greatly reduces the thermal shock a building experiences from fluctuation of outdoor temperatures.

The system functions to help regulate the building temperature and can reduce heating and cooling costs, saving enough energy over time to pay for the cost of the roof installation. Using less energy to heat and cool makes total ecological sense.

It's Not A Complete Roofing Solution Without The Right Waterproofing Membrane

A Silicone Membrane over an SPF roof completes the system by creating a highly flexible, durable waterproof barrier that:

- Cures quickly – usually in just a few hours
- Forms a seamless, self-flashing seal (no seams = no leak problems)
- Resists oxidation, wind-driven rain & snow and ozone
- Is impervious to water, yet vapor permeable
- Performs better than organic materials in all weather conditions
- Maintains flexibility (elastomeric properties) over a wide temperature range
- Offers resistance to cracking and peeling
- Expands and contracts with the roof's movement to resist damage
- Will not shrink, or become brittle or stiff
- Provides tremendous durability and greatly increased service life

Reflects heat and UV rays, helping to cool roof temperatures and reduce interior building temperature on hot days. It also helps prevent heat loss from inside the building on cool days.

Eliminates most tear-offs. Surface can be easily reconditioned by cleaning the surface and recoating with a fresh layer of coating – making the system completely sustainable. This recoating usually incurs a fraction of the cost of the initial installation.

Combine high-performance and environmental responsibility by choosing WDG's line of solvent-free silicone products containing recycled roofing materials reclaimed through our exclusive Roof-to-Roof (R2R™) process.

This complete system – using a silicone membrane and an SPF base – is one of the most efficient, effective and environmentally sound roofing choices available today.

For more information, visit www.wdgsilicones.com
300 Commerce Drive • PO Box 646
LaGrange, OH 44050 U.S.A.
440.355.4682 • 866.924.4585 • fax 440.355.4276

WDG Roof-to-Roof (R2R™) Process, Patent Pending.

©2007 West Development Group

 Printed on Recycled Paper



Leading the Industry in Sustainable Roofing Products and Practices