

PROTECTING YOUR POLYURETHANE FOAM ROOF SYSTEM



ITW Polymers Sealants North America



Problems with Polyurethane Foam Roofs

Like many other areas of the modern home or commercial building, a foam roofing system requires periodic inspection and maintenance. Owners often assume that a new roof should last 10-15 years, but forget that regular inspections and periodic maintenance are necessary to protect and sustain their investment—especially Polyurethane foam roof systems.

- Foam roof systems should be inspected at least twice a year and be coated every 5-7 years. If inspections are not done to detect and correct damage, foam roof systems will not provide secure water-shedding.
- Foam roofs face damage from a wide variety of elements ranging from sun, birds, bugs, hail, and other damaging weather conditions.

• When white protective coatings become thin, the underlying foam can be quickly damaged. The sun's UV rays "burn" the foam and cause premature

deterioration and failure. Once the foam has started to burn, water intrusion becomes a problem.

 Unprotected foam roofs act like a sponge and the water that gets through its protective layer can cause the foam to delaminate from the decking and form blisters throughout the roof system.



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Preparing & Coating Polyurethane Foam Roofs

The simplest way to prevent this type of failure is to apply protective roof coating over a previously coated surface. Elastek® manufactures high performance coatings that work well over new and existing Polyurethane foam roofs.

It can be difficult to determine if a coating is thick enough to protect the underlying foam. If the coating is worn and the foam has been exposed to the sun for any length of time, the foam will turn "orange" or "rust" colored. Just because the top of the foam is burnt, it does not mean the foam roof is no longer able to be saved. A professional roofing contractor who specializes in application of foam roofs will be able to determine if the system can be salvaged.

Coating an existing foam roof is usually very straightforward. Clean the surface, make spot repairs, and apply two coats of elastomeric topcoat. The potential difficulty is the possibility of moisture intrusion below the coated surface of an older foam roof.

Recoating a foam roof reseals the roof and limits moisture intrusion. Water near the surface can cause blistering in the roof coating or de-lamination of the upper layer of foam. Water at the deck level below the foam can eventually lead to foam de-laminating from the deck surface, causing foam "domes."

Check foam roofs for evidence of trapped moisture before undertaking repairs. Consider having a moisture scan conducted by a licensed contractor.



Example of damage caused by water intrusion on a foam roof.

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Additional Notes

- Properly maintained foam roofs will last many years.
- Foam roofs are a great way to add insulation to your home or building.
- UV rays will begin attacking the foam if less than 15 mills of coating exists.
- Apply roof coating when temperature is at least 50 degrees and rising.

Warranties

Extended service life warranties are available when Elastek[®] roof coating products are applied per Directions for Application.

Energy Efficiency

Energy Star certified coatings from Elastek® save energy by reflecting the sun's energy before it can be absorbed and passed into a structure as heat. With reflectivity of up to 92%, and emissivity over 87%, Elastek® coatings can dramatically reduce utility costs. Protected from heat stress and damaging UV rays, the life of the roof system will be greatly extended as well.

More Information

For more information about applying Elastek[®] roof coatings to Polyurethane foam roof systems, please see the Elastek[®] Bulletin "How to Coat a Polyurethane Foam Roof" on our website, www.elastek.com.



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