

# Roof Owners' Maintenance Manual

This manual provides building owners and maintenance personnel with an outline of the proper care and repair procedures for SKYTITE® spray-applied polyurethane foam (SPF) roof systems.

## The Importance of Periodic Roof Inspections

Roofing systems should be inspected at least twice a year (Spring and Fall) for damage or defects. Someone who understands the design and components of the roofing system should perform inspections. Your BASF approved applicator may provide this service.

The Spring inspection identifies any damage sustained over the Winter so repairs can be accomplished during the local roofing season. The Fall inspection will make sure the roof is ready for the upcoming Winter. Seasonal inspections are important for both warm and cold weather regions.

#### About SPF

BASF SKYTITE<sup>®</sup> closed-cell spray polyurethane foam (SPF) roofing insulation offers you a sustainable, high performance, longer life expectancy, lower lifecycle cost roof.

SKYTITE is a seamless, spray-applied system that conforms to virtually any roof configuration while providing lightweight, waterproof and high wind uplift resistance protection to your building. SPF roofing systems offer longer life expectancy and lower lifecycle cost over traditional systems because minor damage is identifiable and repairable by in-house personnel.

## What to Look For

A Maintenance Inspection Checklist accompanies this manual. Use a separate form for each roof. Each inspection should follow a set routine for the examination of each visible component of the roof assembly and the identification of any areas requiring attention. Pay particular attention to:

#### Gutters, Scupper and Drains

- Leaves, dirt, etc. can block positive drainage
- Seals
- Screens and strainers

#### **Rooftop Units and Penetrations**

- Vents, hatches, stacks, skylights and HVAC equipment penetrations
- Condensation from HVAC units piped to drains
- Rain caps on stacks
- Seams in units
- Damage to the surrounding roof system caused by service to units

#### Surface Area of Roof

- Mechanical or physical damage caused by tools or heavy objects, hail, vandalism or excessive foot traffic
- Blisters or interlayer separation

## Flashings, Roof Edges, Terminations, Expansion and Control Joints

- Cracks or splits at roof terminations, including edge flashings and expansion joints
- Coping joints and metal flashings
- Check masonry walls for moisture penetration or deterioration

#### **Special Inspections**

Special inspections are recommended following situations such as:

- Construction on or above the roof or adjacent areas
- · Installation of new equipment on the roof
- Extreme weather conditions such as hail, high winds or unusually heavy snow load
- Fire, vandalism or other known damage to the roof or adjacent area

An inspection should also be carried out when maintenance, repair or re-roofing is anticipated. A follow-up inspection should be performed when this work is completed.

#### Defects

- Pinholes
- Erosion of coating or SPF
- Cracks and moisture penetration
- A small slit sample may be taken to determine moisture content, or a non-destructive moisture detection device may be used

#### Prevent Damage

Take these steps to prevent damage and safeguard the long life of your SKYTITE SPF roofing system:

- Remove debris from the roof
- Do not use the roof as a storage area
- Vent exhaust or harmful chemicals away from the roof surface
- Pipe condensation from HVAC units to drains
- Minimize foot traffic or install walkways to reach essential equipment (check with BASF or your approved applicator prior to installation)

## Know Your Roof System

Keep a historical record and roof system file available to all roof maintenance personnel. The file should include:

- Technical data sheets
- Material safety data sheets
- Original specifications
- Warranty
- Contact information for BASF and your approved applicator
- Previous roof inspection reports
- Record of repairs made
- This manual

## When to Call an Approved Applicator

Some repairs will require an approved applicator's expertise. Consult warranty terms before performing any repairs to avoid negating the warranty. The warrantor must be notified prior to performing repairs to any problems covered by the warranty. Other situations that require a professional include:

- Large blisters
- Significant leaks
- Renewal/recoating

## Conclusion

The service life of an SKYTITE polyurethane foam roof can be greatly extended by proper maintenance and care. The building owner should:

- Limit and control roof access
- Conduct regular inspections
- Conduct special inspections following extraordinary situations such as extreme weather
- Report leaks or damage immediately
- Perform routine maintenance
- Use BASF approved applicators for major maintenance, new penetrations and permanent repairs

Paying attention to these six areas will help to provide the building with a sustainable, high performance, longer life expectancy, lower lifecycle cost roof.

Repair materials compatible with all SPF roof coating systems are available from BASF.

## **Performing Minor Repairs**

Building maintenance personnel can perform minor repairs or take temporary measures to prevent further damage to the roof system or building interior following extreme weather. If the roof system is under warranty, the warrantor must be notified as soon as possible. Always observe safety precautions when maintaining or inspecting a roof system.



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#### Small Punctures and Holes

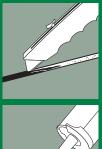
Follow these steps to repair small, damaged areas using a compatible caulking material:

- Thoroughly clean roof surface around damaged area with a rag and clean water; allow to dry completely
- Using a knife, carefully cut out any loose, wet or damaged coating membrane or SPF material at a 45° angle, leaving a clean, beveled depression
- Apply compatible caulking to the hole until it overfills; feather and smooth around the edge
- If a compatible top coating is available, the caulking should be completely cured prior to applying coating

#### **Cracks or Slits**

Follow these steps to repair cracks or slits using a compatible caulking material:

- Thoroughly clean roof surface around the area with a rag and clean water; allow to dry completely
- Using a knife, carefully trim any dirty or wet materials back; the result will be a V-shaped groove that extends beyond the original crack
- If the crack is between metal flashing and SPF, trim it back from the metal in a 0.5" wide V-shape; the metal must be clean
- Apply a compatible caulking material until the crack overfills; feather and smooth around the edge







#### **Small Blisters**

Blisters in SPF roofs should not be broken or cut open until repairs are started. Blisters larger than 4" in diameter and more than 1" deep require repair by a professional SPF contractor.

Follow these steps to repair minor blisters using a compatible caulking material:

- Thoroughly clean roof surface around the area with a rag and clean water; allow to dry completely
- Cut out the blister until all loose material is removed and a tight edge achieved; bevel the cut at a 45° angle sloping inward
- Fill the hole with a compatible caulking material; ensure caulk extends slightly above the roof level and beyond the hole 2-3" and edges are feathered
- If a compatible top coating is available, the caulking should be completely cured prior to applying coating

BASF approved applicators may have training programs available for roof maintenance personnel.

## **Service Agreements**

Many approved applicators offer a maintenance or service contract. Service agreements generally cover periodic inspections and routine maintenance. A report is issued to the building owner following each inspection, including recommendations for immediate and future repairs. This report should become part of the roof system historical record.

## Warranty

The warranty establishes and limits the responsibilities and liabilities of the building owner, manufacturer and contractor for a specified period of time. It is very important that building owners read and understand the terms and conditions of the warranty.

A manufacturer or contractor warranty can be voided for a variety of reasons. Please review the warranty documents provided for limitations.

## **Protective Coatings**

SKYTITE polyurethane foam roof systems require a protective coating to maintain weatherproofing benefits. The coating also protects the insulation from deterioration from ultraviolet (UV) ray exposure and mechanical damage.

This elastomeric coating may be acrylic, silicone or urethane. When repairing SPF systems, it is important to use materials compatible with the coating on the top surface of the roof. For example, a silicone coating must be repaired with a silicone sealant.

Failure to use compatible materials may void the warranty.

The type of coating used on the roof should be listed on the warranty, project contract and historical record. If there is any doubt, please contact a BASF approved applicator for assistance.





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