

## FEcoat 3000 Series Silicone Roof Coating System Technical Data Sheet

### DESCRIPTION:

**FEcoat 3000 SERIES Silicone Roof Coating** is a single-component, moisture-curing silicone rubber roof coating system, specifically designed for use in roofing applications as the weather seal coating in spray applied polyurethane foam roofing systems.

### **Key Performance Properties:**

**FEcoat 3000 SERIES** is a single-component silicone rubber dispersion. It is a ready to use material, requiring no mixing and can be applied by spray, roller, or brush. Fast cure rate and 20 minute tack-free time provides adequate time for granule application. 3.5-5 hour dry time assures adequate cure at the end of the application day.

Once cured, the **FEcoat 3000 SERIES** silicone roof coating forms a tough, flexible membrane that is integral with the structure itself. When properly applied, the cured coating provides a weathertight seal that will protect polyurethane foam from degradation caused by weathering, aging, oxidization, wind-driven sand, rain and snow, the effects of ozone, and ultraviolet radiation. The membrane remains flexible even after exposure to extremes of heat typically seen on roofs.

The cured silicone rubber membrane is vapor permeable, having the ability to "breathe," and thus reduces both the chances of blistering cause by vapor pressure in the substrate and the possibility of damage to the substrate caused by entrapped water.

The controlled flow properties of the coating allow a continuous, even film to be applied even on rough surfaces. High static viscosity assures material stays where it is sprayed. It won't flow off high spots or vertical areas on parapets.

**FEcoat 3000 SERIES** is VOC compliant. 300 g/liter mineral spirits content assures compliance in most areas of California, greater New York City, & New Jersey (verify compliance in location of use).

### TECHNICAL DATA:

#### TYPICAL PHYSICAL PROPERTIES

Property	Value	Test Method
Color	DF 3000 Dark Gray    DF 3001 White DF 3002 Gray        DF 3003 Beige	Visual to standard
Solids Content % By volume	62%	ASTM C-19
% By weight	77%	ASTM C-19
Tack Free Time, minutes	20 minutes	ASTM E-86
Dry Time, hours	3.5 hours	ASTM C-560
Tensile Strength (psi)	400 psi	ASTM D-412
Hardness, Shore A	43	ASTM D-2240
Elongation, %	125%	ASTM D-412
Peel Strength, lbs/inch	27 lbs/inch	ASTM C-628
Tensile at 100% elongation	Nil	
Permeability (20 mils @ 100 F / 90% RH)	3.7 perms	ASTM E-96
Weatherometer	No degradation No degradation	Carbon-Arc, 4,000 hours QUV, 10,000 hours

*Typical product data values should not be used as specifications. Assistance and specifications are available by contacting BASF Polyurethane Foam Enterprises, LLC at 800-888-3342.*

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**Approvals/Specifications:**

- Meets Factory Mutual Class I ratings over metal decks, existing built-up roofs and concrete decks
- Meets UL-790 requirements for Class A ratings on noncombustible decks
- Complies with the Southern Building Code Congress International Standards (Report 9414)
- Accepted by the International Conference of Building Officials (Report 3735)
- Conforms to Building Officials and Codes Administrators International Standards (Report 86-135)

**SURFACE PREPARATION:**

**FEcoat 3000 SERIES** may be applied over properly cured, structurally sound, clean and dry polyurethane foam. Loose particles of foreign matter should be blown, brushed, or vacuumed away. Surface must be smooth and flat enough to prevent puddling of water on the finished roof. Before applying roof coating, be sure surface is also free of moisture and that at least 2 hours of adequate temperature and humidity remain before the onset of nightfall or inclement weather.

**FEcoat 3000 SERIES** may be applied directly over each other and over most other silicone roof coatings. When recoating older silicone coated roofs, be sure the surface is clean, dry, and structurally sound and that all holes and underlying damage has been properly repaired. The existing coating may have to be power washed with an appropriate surfactant solution then power rinsed to remove dirt. It is recommended that a test patch be cleaned and coated with **FEcoat 3000 SERIES** to verify the effectiveness of the cleaning process and the adhesion to the surface prior to beginning the job.

**INSTRUCTIONS FOR USE:**

**FEcoat 3000 SERIES** Silicone Roof Coating is applied in two coats of contrasting colors at a rate of at least 1 1/4 gallons per 100 square feet for each coat, using the material as supplied. Apply using conventional, airless spray equipment (a medium nap, solvent-resistant paint roller or brush may be used for touch-up work). The low spraying viscosity of **FEcoat 3000 SERIES** assures easy spraying with airless spray systems using a minimum 45: or 54:1 ratio air motor driven pump.

Cure time for each coat may vary from 2 to 6 hours, depending on temperature and humidity. Lower temperatures will lengthen the skinover, tack free, and ultimately, cure time. Higher temperatures will shorten the cure time and working time for proper application of granules before the material has skinned. Sudden temperature declines may also result in dew formation on surfaces, which can prevent adhesion development. For best results, relative humidity should be above 20%. Lower humidity will slow the cure rate significantly.

Unless a greater thickness is required by the Special Warranty selected, the minimum combined thickness of basecoat and topcoat must be 15 mils. Optional application of #11 standard roofing granules may be made according to Foam Enterprises printed instructions to improve fire rating, to provide nonslip service walk areas, or for aesthetics.

For best protection of polyurethane foam, the full polyurethane foam thickness and silicone basecoat should be applied the same day. For best results, apply at temperatures above 40 °F.

Care should be taken to avoid overspray. All overspray should be cleaned up immediately and before it has cured by wiping alternately with mineral spirits and dry rags. Cured material may have to be scraped off surfaces with a razor blade or scrubbed off with steel wool and mineral spirits. To avoid overspray, avoid spraying in high winds (above 15 mph) and/or mask all surfaces that are not to be coated.

**FEcoat 3000 SERIES** should not be used on the outside of cold tanks. The product is neither tested or represented as suitable for medical or pharmaceutical uses.

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**HANDLING AND SAFETY:**

Product safety information required for safe use is not included in this document. Before handling, read Material Safety Data Sheets and container labels for safe use, physical and health hazard information. Material & Safety Data Sheets are available upon request from BASF Polyurethane Foam Enterprises LLC. Similar information for solvents and other chemicals used with BPF E products should be obtained from your suppliers. When solvents are used, proper safety precautions must be observed.

**PACKAGING AND STORAGE:**

**FEcoat 3000 SERIES** is available in 50-gallon containers. The shelf life of this silicone coating is 6 months from the date of manufacture listed on drum, if stored in the original unopened container at 77 °F. Refer to product packaging for "Use By" date.

**\*FOR PROFESSIONAL USE ONLY - KEEP OUT OF THE REACH OF CHILDREN\***

*The information herein is to assist customers in determining whether our products are suitable for their applications. Our products are intended for sale to industrial and commercial customers. We request that customers inspect and test our products before use and satisfy themselves as to contents and suitability. We warrant that our products will meet our written liquid component specifications. Nothing herein shall constitute any other warranty, expressed or implied, including any warranty of merchantability of fitness, nor is protection from any law or patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is replacement of our materials and in no event shall we be liable for special, incidental or consequential damages.*

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