

# TOPCOAT<sup>®</sup> System Specifications Polyurethane Foam

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*Quality You Can Trust...From North  
America's Largest Roofing Manufacturer!™*

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## PART 1 – GENERAL

### 1.01 SYSTEM DESCRIPTION

The TOPCOAT® Roofing System can be applied on urethane foam. This section addresses unique aspects for this type of installation. Unless otherwise specified in this section, GAF Materials Corporation (GAFMC) standard specifications and Detail Drawings shall be used for installations on urethane foam.

### 1.02 SUBSTRATE CONDITIONS

- A. The TOPCOAT® Roofing System is to be applied over dry, sound urethane foam only with a minimum slope of 1/2":12". Substrate should not pond water for a period longer than 48 hours after precipitation stops.
- B. Test patches shall be prepared in representative roof areas to check TOPCOAT® adhesion before application on any urethane foam roof. TOPCOAT® products will not adhere to existing silicone-based coatings over urethane foam.
- C. **The bonding surface must be free of ponding water, ice, snow, and splits.**
- D. GAFMC/ TOPCOAT® requires that a moisture scan be done by an independent source and requires it for a warranty.
- E. If the moisture scan reveals more than 20% of the roof area is wet, consider other reroofing options.
- F. The TOPCOAT® Roofing System should not be used on heavy-traffic bearing substrates. If foot traffic is expected, a rooftop walkway system must be used.

### 1.03 WARRANTY

Provide GAFMC/ TOPCOAT® Weather Stopper® Integrated Roofing System Guarantee per the requirement of the Building Owner and/or Project Architect for the TOPCOAT® products installed in accordance with these specifications. Should a question arise as to the appropriateness of the TOPCOAT® Roof Coating System for any given polyurethane foam roof, please contact GAFMC's Contractor Service Department.

*See limited warranty and guarantee for complete coverage and restrictions.*

## PART 2 – PRODUCTS

### 2.01 ACCEPTABLE MANUFACTURERS

GAF Materials Corporation

### 2.02 MATERIALS - GENERAL

**Note Drying Times: Listed drying times for various TOPCOAT® products are directly affected by environmental conditions and thickness of application. Allow additional drying time when experiencing high relative humidity, low temperatures and/or very thick product application to prevent improper curing and/or product “wash-off”.**

Low Slope  
Restoration Specs

## A. TOPCOAT® Flashing Grade

TOPCOAT® Flashing Grade is a light gray, water-based 100% acrylic synthetic rubber sealant which is applied to seams, fasteners, flashings, and penetrations prior to the application of the TOPCOAT® Elastomeric Roofing Membrane. Like the TOPCOAT® Roofing Membrane, it has superior adhesion, flexibility, and resistance to ultraviolet degradation. Do not apply at temperatures below 42°F. Substrate temperatures must be below 120°F when applying product.

Application Rate (seams):	5 gallons/125 ft. (6" width)
Application Method:	Brush or caulking gun
Application Temp (air, surface):	42° - 120°F
Drying Time (75°F, 50% RH):	Approximately 24 hours
Recommended Wet Mil Thickness:	105 wet mils
Recommended Dry Mil Thickness:	60 dry mils
Total Solids (by weight):	68% ± 1%
Total Solids (by volume):	56% ± 2%
Specific Gravity:	1.44 ± 0.1
Tensile:	225 psi ± 10%
Weight per Gallon:	12.0 ± 0.5 lbs
Viscosity (75°F):	225,000 ± 22,500 cps
Clean-up:	Water before curing

## B. TOPESTER Reinforcing Fabric

TOPESTER Fabric is a non-woven, spun bonded 100% polyester web that must be used in conjunction with TOPCOAT® Flashing Grade, SB-900 and FlexSeal at all penetrations, joints or changes in plane that are subjected to high shear or stress.

Average Weight (Ounces per square yard) per ASTM D1117:	1.5
Average Tensile Strength per ASTM D1628:	44 psi
Average Elongation at break per ASTM 1628:	53%
Trapezoidal Tear Strength per ASTM D2263:	18.5 lbs

## C. TOPCOAT® Elastomeric Roofing Membrane



TOPCOAT® Elastomeric Roofing Membrane is a water-based 100% acrylic spray-applied liquid which cures to form a seamless elastomeric roofing membrane specially designed to seal the entire roof. TOPCOAT® Elastomeric Roofing Membrane is an ENERGY STAR® qualified reflective product, which will help in reducing building temperatures. Meets the stringent standards set by the Cool Roof Rating Council<sup>SM</sup> for solar reflectance and thermal emittance. It offers high tensile strength and elongation, and is virtually undamaged by extended exposure to solar ultraviolet energy. Ultraviolet rays enhance curing. It is low in VOC, non-flammable and presents minimal hazard to the applicator and the environment. It is available in white (for maximum reflectivity) and 15 standard colors. Custom tinting is available upon request. Do not apply at temperatures below 42°F. Substrate temperatures must be below 120°F when applying product.

Application Rate:	1.0 to 3.0 gallons/100 sq.ft. total
Application Method:	Airless sprayer
Application Temp (air, surface):	42° - 120°F
Drying Time (75°F, 50% RH):	Approximately 24 hours per coat
Wet Mil Thickness:	(1.0 Gallon/100SF) - 16 wet mils
Dry Mil Thickness:	(1.0 Gallon/100SF) - 9 - 10 dry mils
Total Solids (by weight):	71% ± 3%
Total Solids (by volume):	58% ± 2%
Specific Gravity:	1.48 ± 0.06
Weight per Gallon:	12.3 ± 0.5 lbs
Viscosity (75°F):	19,000 ± 3,000 cps
pH:	10.0 ± 1.0
Elongation:	375% ± 25%
Tensile Strength:	275 ± 25 psi
Water Permeability:	5.28 perm inch (ASTM D-1653)
Freeze-Thaw Stability:	Passes five cycles
Low Temp Flexibility:	35 mil dry film will bend 180° @ -30°F without

Weatherability :

fracturing  
1,000 hours Atlas Weather-o-meter® exposure per ASTM D-412,ASTM G-26.  
Tensile Strength: 150% of original  
Elongation: 85% of original  
1,500 hours Atlas Weather-o-meter® exposure per ASTM D-412,ASTM G-26. No cracking, embrittlement, loss of adhesion or discoloration  
2,000 hours UV exposure, type UV bulb, per ASTM G-53. No cracking, embrittlement, loss of adhesion or discoloration  
Water and mild soap

Clean-up:

## **PART 3- EXECUTION**

### **3.01 PREPARATION OF SUBSTRATE**

- A. Examine substrate to receive new roofing. Do not proceed with new roofing until adhesion has been verified by test patches and other preparatory work has been completed or until unsatisfactory conditions have been corrected in a manner acceptable to GAFMC.
- B. Pressure Washing: Substrate must be pressure washed with water. A minimum working pressure of 2,000 psi is to be used to remove all dirt, dust, chalking and waste products (oil, oil-based roof cements, solvents, grease, animal fats, etc.).
- C. Treatment of Deteriorated Foam: All areas where the urethane foam has degraded must be re-foamed to bring the substrate to a smooth, workable surface. Any areas where foam has become wet must be removed and re-foamed.
- D. Substrate must be clean, dry, and free of any debris before application of TOPCOAT® products.

### **3.02 APPLICATION**

- A. All penetration areas and splits must be treated with a 6" wide area of TOPCOAT® Flashing Grade, one layer of TOPESTER Fabric and a final layer of Flashing Grade to completely embed the Fabric. Feather the Flashing Grade onto the existing urethane foam substrate.
- B. After at least 24 hours drying time, inspect preparatory/flashing work for problem areas (i.e., gaps, cracks, fishmouths, air pockets, etc.) to ensure that work is complete and satisfactory. Repair any deficiencies using TOPCOAT® Flashing Grade and TOPESTER Fabric, as required.
- C. Coating Applications:
  - 1. For new urethane foam roofs or foam roofs where the existing coating is in relatively good condition:
    - a. Spray-apply base coat (White) of TOPCOAT® Elastomeric Roofing Membrane at a rate of 1.25 gallon per 100 sq.ft. Allow at least 24 hours drying time and inspect the base coat for defects, flaws or holidays. Correct any unsatisfactory conditions prior to proceeding.
    - b. Spray-apply finish coat (White) of TOPCOAT® Elastomeric Roofing Membrane at a rate of 1.75 gallon per 100 sq.ft. Finish coat should not be applied unless the base coat is clean and dry and will provide proper adhesion.
    - c. Allow at least 24 hours drying time prior to allowing foot traffic or inspection of the roof. After 24 hours has elapsed, inspect the final roof surface for flaws, holidays, insufficient thickness, etc., and repair any unsatisfactory conditions. Specified membrane thicknesses are minimum 23 mils field and 80 mils on penetration details.

**For application questions, please contact GAFMC Contractor Services at 1-800-766-3411.**

**Note:** Repair leaks promptly to avoid adverse effects, including mold growth