

TOPCOAT[®] System Specifications Corrugated Transite Panels

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PART 1 – GENERAL

1.01 SYSTEM DESCRIPTION

The TOPCOAT® Roofing System can be applied on corrugated asbestos roof panels. This section addresses any 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 corrugated asbestos roof panels.

1.02 SUBSTRATE CONDITIONS

- A. The TOPCOAT® Roofing System is to be applied over corrugated asbestos panels with a minimum slope of 1/2":12". Substrate should not pond water for a period longer than 48 hours after precipitation stops.
- B. 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® System Guarantee per the requirement of the Building Owner and/or Project Architect. In order to obtain any GAFMC/ TOPCOAT® System Guarantee, the following conditions apply:

- A. Determination of the appropriateness of the TOPCOAT® Roofing System for any given metal roof must be obtained from GAFMC's Contractor Services Department prior to offering any GAFMC/ TOPCOAT® System Guarantee. GAFMC will not offer a guarantee on any TOPCOAT® System being installed over an unfit, unsound, or inappropriate substrate.
- B. Installer must be a Certified GAFMC Contractor. GAFMC/ TOPCOAT® System Guarantee work cannot be sub-contracted to a non-certified applicator.
- C. TOPCOAT® Roofing System must be applied to the full area of the roof. A GAFMC/TOPCOAT® System Guarantee will not be issued for GAFMC System installations over a section of any roof unless otherwise approved in advance by GAFMC's Contractor Services Department.
- D. Installer shall provide GAFMC Contractor Services Department at least two weeks notice for scheduling of on-site technical support/inspections.
- E. TOPCOAT® Elastomeric Roofing Membrane should be spray-applied. Any installation where TOPCOAT® Roofing Membrane will be applied by another method must be pre-approved by GAFMC's Contractor Services Department.
- F. All gutters and roof areas which pond water for more than 48 hours after precipitation ceases are excluded from coverage under the GAFMC/ TOPCOAT® System Guarantee.
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".

See limited warranty and guarantee for complete coverage and restrictions.

A. TOPCOAT® Precote

Solvent-based primer/sealer for use on porous or friable substrate to bind surface and obtain optimum adhesion of TOPCOAT® products. Do not apply at temperatures below 42°F. Substrate temperatures must be below 120°F when applying product.

Application Rate:	1 gallon/100 sq. ft.
Application Method:	Brush or roller
Application Temp (air, surface):	42° - 120°F
Drying Time (75°F, 50% RH):	Approximately 30 minutes
Total Solids (by weight):	28.4% ± 1%
Specific Gravity:	0.86 ± 0.1
Weight per Gallon:	7.2 ± 0.5 lbs
Viscosity (75°F):	200 ± 100 cps
Clean-up:	Mineral Spirits, Xylene, Toluene

B. 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

C. TOPESTER Reinforcing Fabric

TOPESTER Fabric is a non-woven, spun bonded 100% polyester web that must be used in conjunction with TOPCOAT® Flashing Grade or 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

D. 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 CouncilSM 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 fracturing
Weatherability :	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
Clean-up:	Water and mild soap

PART 3 – EXECUTION

3.01 PREPARATION OF SUBSTRATE

- A. Examine substrate to receive new roofing. Do not proceed with new roofing until preparatory work has been completed or until unsatisfactory conditions have been corrected in a manner acceptable to GAFMC.
- B. Treatment of Excessive Gaps: All large or excessive gaps existing between roof panels must be filled or made flush with closed-cell foam strips or polyurethane foam to pre-fill voids (larger than 1/4 inch) before applying TOPCOAT® Flashing Grade.
- C. Fasteners: All fasteners must be re-tightened, secured or replaced, as necessary. All stripped fasteners must be replaced with larger fasteners. All missing fasteners must be replaced.
- D. Pressure Washing: Substrate must be pressure washed with water. Use minimum working pressure of 2,000 psi to remove all dirt, dust and waste products (oil, oil-based roof cements, solvents, grease, animal fats, etc.). Corrugated asbestos panels are likely to contain significant amounts of ASBESTOS (CAS No. 1332-21-4), which may be released during pressure washing. Since asbestos dust is an extreme HEALTH HAZARD and a known carcinogen, it is the Installer's responsibility to check with state and local agencies regarding its proper disposal, as well as the proper protection for workers exposed to this material.

3.02 APPLICATION

- A. Apply one coat of TOPCOAT® Precote at the rate of 0.75 gallon per 100 sq.ft over entire roof area. Allow 1-2 hours drying time before proceeding with flashing work.

(Note: Substrate must be completely dry before TOPCOAT® Precote can be applied.)

- B. Flash Detail Areas: All detail areas, horizontal seams, vertical seams, penetrations, curbs and fasteners must be flashed with TOPCOAT® Flashing Grade (and for some situations, TOPESTER Fabric) in accordance with GAFMC Detail Drawings and as follows:
1. Horizontal Seams: Must be sealed with a 6" width of TOPCOAT Flashing Grade.
 2. Vertical Seams: Must be sealed with at least a 4" width of TOPCOAT® Flashing Grade.
 3. Roof Penetrations and Stress Areas: Flash all roof penetrations and stress areas with a 6" width (minimum) of TOPCOAT® Flashing Grade, one layer of TOPESTER Fabric and a final layer of Flashing Grade to completely embed the Fabric.
 4. Fasteners: Encapsulate all exposed fasteners with TOPCOAT® Flashing Grade. Ensure the Flashing Grade is feathered neatly over and around the fasteners.
- C. 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.
- D. Spray-apply base coat (Gray) of TOPCOAT® Elastomeric Roofing Membrane at a rate of 1.25 gallons 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.
- E. Spray-apply finish coat (White) of TOPCOAT® Elastomeric Roofing Membrane at a rate of 1.75 gallons per 100 sq.ft. Finish coat should not be applied unless the base coat is clean and dry and will provide proper adhesion.
- F. 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 28 mils field and 88 mils on flashing 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.