

DESCRIPTION

General Coatings Manufacturing Corp. (GCMC) Foam Roof System offers high-density, spray polyurethane foam roofing systems that are designed to stop leaks, reduce energy loss, and extend the life of your existing roof. Constructed by applying multiple layers of strong, durable, and dependable roof coatings, the GCMC Foam Roof System is ideal for use over Cap Sheet, Plywood/OSB, Metal, Concrete, ISO Board, Tar and Gravel roof substrates.

SYSTEM STEPS

Primer

Step 1 is a high solids, fast curing, low viscosity, elastomeric, primer with excellent bonding, intercoat adhesion, and unique penetrating characteristics.

Spray Polyurethane Foam (SPF)

Step 2 is a two-component, closed-cell, spray polyurethane foam (SPF) specifically designed to provide a high performance, light-weight, durable roof protective membrane over a wide variety of roof and roof deck applications. SPF improves your energy efficiency and offers you an economic lifecycle cost coupled with a low environmental impact. GCMC Spray Polyurethane Foam is available in 2.5 lb, 2.7 lb, and 3.0 lb densities.

Base Coat

Step 3 is a strong, fast-curing, weather-resistant, urethane base coat membrane (polyurethane or polyurea) coating. It forms a strong and durable adhesive bond and protective barrier with the GCMC spray foam. It is specifically formulated to build additional film thickness prior to the top coat application.

Top Coat

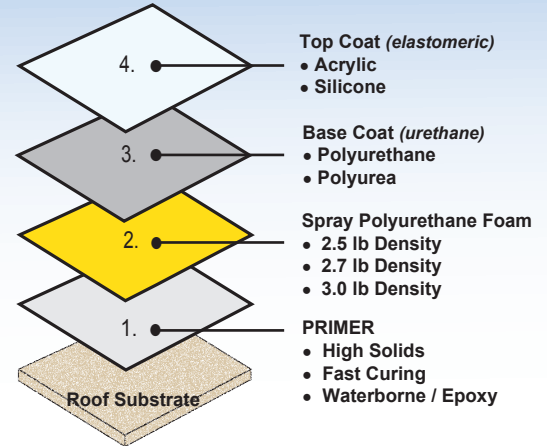
Step 4 is a elastomeric (acrylic or silicone) protective top coat membrane. This monolithic layer provides UV resistance, color and gloss retention, abrasion resistance, and (depending upon the selection) is listed and classified by Underwriters Laboratories, Inc. UL790 Class A as an integral component of numerous roof deck and construction assemblies (File #14330). It is also approved by the California State Fire Marshall.

FEATURES & BENEFITS

- Reduces installation time and costs
- Enhances resistance to wind uplift and hail damage
- Carries UL 723 and UL 790 Class A Ratings
- Extremely lightweight
- Weather resistant
- Seamless, fully-adhering and self-flashing
- Covers complex geometric shapes and protrusions

GCMC FOAM ROOF SYSTEM

Over Cap Sheet, Plywood/OSB, Metal
Concrete, ISO Board, Tar and Gravel Roof Substrates



TYPICAL SPF PHYSICAL PROPERTIES

PROPERTY	DENSITY		
ASTM TEST METHOD	2.5	2.7	3.0
Sprayed-in-place Density	2.5	2.7	3.0
R-Value (1-inch thickness)	6.62	6.62	6.62
K-Factor Aged	0.15	0.15	0.15
Compressive Strength (psi)	45 psi	45 psi	50-60 psi
Tensile Strength (psi)	60 psi	60 psi	90 psi
Shear Strength (psi)	45 psi	45 psi	50-60 psi
Closed Cell Content (%)	95%	95%	98%
Water Vapor Transmission	1.8 perms	1.8 perms	1.8 perms
Water Absorption	0.017	0.017	0.017
Wind Uplift	>I-450	>I-450	>I-450

BUILDING AND FIRE CODES

The GCMC Foam Roof System is listed and complies with the requirements of the California State Fire Marshall. The spray polyurethane foam component has been independently tested (Report #: 319356MDI-002) and determined by ICC to meet the following building codes: IBC, IRC and IECC. Additionally it meets the "Standard Test Methods for Fire Tests of Roof Coverings" and exceeds ASTM E-84 / UL 790A and ASTM E-108 / UL 723 fire ratings.

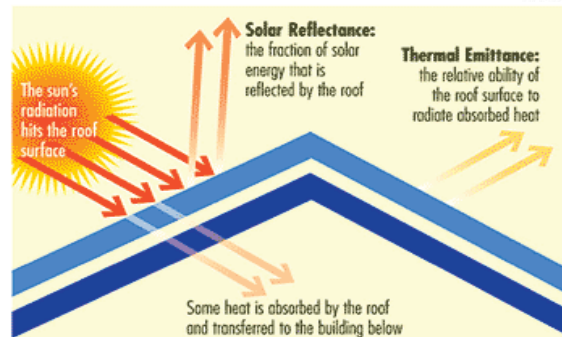
SHELF LIFE

Six months from the date of manufacture when stored in original unopened containers at temperatures between 50° - 75°F. Temperatures above 75°F may decrease shelf life.

STORAGE

GCMC Foam Roof System liquid components should be stored in original unopened containers at temperatures between 50°F and 75°F.

Note: Storage for prolonged periods of time at high temperatures may alter the reactivity profile of the product. Additionally, storing the side-B component at increased temperatures or in direct sunlight for prolonged periods may cause a build-up of pressure in the storage vessel. Containers should be opened slowly to release any pressure buildup.



GCMC Foam Roof Systems provide a dependable barrier that has proven to stop leaks, reduce energy loss, and extend the life of your existing roof

PROCESSING GUIDE

Description And General Use

GCMC Foam Roof Systems are sophisticated plural component building products which should be applied only by trained and manufacturer-approved insulation experts familiar with the properties of this material. GCMC coatings are specifically designed as insulation for construction applications where the end use ambient temperature range will be maintained between -100°F and 225°F.

Adhesion Test

To ensure the successful application of the GCMC Foam Roof System, always perform an adhesion test with the GCMC primer to ensure that the roof substrate will accept the coatings.

Pre-Inspection

Pre-inspect the roof for necessary repairs before applying the GCMC Foam Roof System. The Inspection should include but not limited to:

- HVAC Flashing
- Proper Drainage
- Single Ply Seams
- Roof Penetrations
- Sign of Display Anchorage
- Drains & Location of Drains
- Water Leakage
- Seam, Terminators, Reglets
- Parapet Roof Detail
- Wet or Damp Insulation
- Coping and Flashing
- Sleepers & Pitch Pockets

Substrate Preparation

For optimum results, surfaces to receive the GCMC Foam Roof System should be clean and dry, free of dirt, oil, solvent, grease, loose particles, peeling coating and other foreign matter. Untreated ferrometallic substrates should be sandblasted in accordance with SSPC-SP6. Sandblasted surfaces should be primed immediately with an approved primer. Galvanized and stainless steel surfaces should be treated with an appropriate wash primer prior to application. Porous substrates such as wood and concrete may not require priming if surfaces are clean and dry with less than 10% moisture content.

Substrate Temperature

The GCMC Foam Roof Systems may be applied to surfaces with temperatures as low as 50° in many instances.

AMBIENT AIR TEMPERATURE

<u>Winter</u>	<u>Regular</u>	<u>Summer</u>
50-60°F	65-85°F	Above 90°F

General Coatings Manufacturing Corp. technical service personnel should be consulted in all cases where application conditions are marginal.

Spraying

GCMC roof foam should be deposited in uniform passes ranging from 1/2" to 1 1/2". Pass thickness will vary as a function of substrate temperature, ambient air temperature, humidity, and machine output. Bond strength is best when the previous pass is still warm (above 70°F). GCMC roof foam performs best when it is coated the same day of application, however it may be left exposed for up to 24 hours. In the event it is exposed for a period greater than 24 hours.

Climate Conditions

No spraying should be done when moisture is present in the form of rain, dew or relative humidity greater than 80%, or when there is wind in excess of 15 m.p.h. Exercise caution and due discretion when precipitation or winds are anticipated within 4 hours of intended application.

Protective Coating Barrier

Exercise caution and due discretion when precipitation or winds are anticipated within 4 hours of intended application. When applied to exterior weathering surfaces, GCMC roof foam must be top coated with an approved elastomeric coating.

Fire And Thermal Barrier

GCMC polyurethane roof insulation foam is combustible under many fire conditions. For fire and thermal protection, use a GCMC UL fire-rated, 15-minute finish, top coat over the entire roof application.

Your Authorized GCMC Representative



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