



Technical Data Sheet

ELMS® PLATINUM Liquid Membrane™

Biobased Urethane Waterproofing Membrane for Low Slope Roofing Assemblies

DESCRIPTION

ELMS® PLATINUM Liquid Membrane™ is a solar reflective, biobased urethane roof coating to be applied as a liquid waterproofing membrane over various low slope roofing substrates such as smooth asphalt built up roofs; granular and smooth modified bitumen; single-ply membranes such as TPO, aged Hypalon and aged PVC membranes; EPDM; metal roofing assemblies; Polyurethane Foam and more where ponding water conditions may exist. **ELMS® PLATINUM Liquid Membrane™** provides many outstanding benefits including: superior elongation, tensile and adhesion to substrate; 100% waterproof even under ponding water conditions; low VOC; environmentally friendly; excellent UV resistance; and stain, mildew, and mold resistance.

Each roof application has unique requirements and as such may require a specific system configuration and application. It is recommended that you contact Green Products, LLC. for technical services to assess the proper use of any product within a roof system configuration or for roof systems approvals.

TYPICAL PHYSICAL PROPERTIES

| <u>PROPERTY</u> | <u>VALUE</u> | <u>TEST METHOD</u> |
|--|---|--------------------|
| Viscosity | 18,000 cps | ASTM D 2196 |
| Elongation @ 77°F | 1446.12% | ASTM D 6083 |
| Tensile @ 77°F | 106.3 psi | ASTM D 6083 |
| Water Absorption | 0.9053% | ASTM D 6083 |
| Permeability | 0.2401 perms (>1 perm) | ASTM D 6083 |
| Low temperature flexibility | No loss of adhesion or cracking. Unaffected | ASTM C 734 |
| Ultraviolet Exposure 10,000 hrs UV and Moisture | No cracking, checking, loss of flexibility or discoloration | ASTM 822 |
| Mold, Mildew, Bacteria, Algae Resistance | 100% Resistant | ASTM D 3273 |
| Solar Reflectance | .84 | ASTM E 903 |
| Emittance | .88 | ASTM E 408 |
| Solar Reflectance Index (SRI) | 104.53 | ASTM E 1980 |
| V.O.C. | 140 g/l | |
| Solids Content | 61% | |

PRODUCT USES

ELMS® PLATINUM Liquid Membrane™ is recommended to be applied as a liquid waterproofing membrane over various low slope roofing substrates such as smooth asphalt built up roofs; granular and smooth modified bitumen; single-ply membranes such as TPO, aged Hypalon and aged PVC membranes; EPDM; metal roofing assemblies; Polyurethane Foam and more where ponding water conditions may exist.

COVERAGE

Coverage rates required to qualify for extended warranties range from 2 - 4 gal/sq (0.8 - 1.6 l/sq/m).

When applied at a rate of 2-gal/sq (0.8 l/m), the theoretical wet film thickness should be 30 mils of thickness and a dry film thickness should be 21 mils.





Environmental Liquid Membrane System®

COLOR

Standard colors are U.S. EPA Energy Star® and CRRC rated highly solar reflective white, light gray, light tan. Custom colors are available upon request for a nominal fee. All colors must be mixed prior to application to assure that pigments have not settled.

STORAGE STABILITY

One-year minimum when stored in unopened containers at 45° F - 90° F

CLEAN UP

Mineral Spirits (California Rule 66 MS recommended); aMAIZEing™ Biobased Solvent & Stripper.

PRIMER

None necessary.

CURE TIMES

When applied at 30 wet mills, coating thickness and at conditions of 75° F (24° C) and 50% relative humidity, **ELMS® PLATINUM Liquid Membrane™** will dry to the touch in 1 to 2 hours and should reach final cure in 24 hours. Colder weather and/or higher humidity will retard curing whereas warmer weather and/or lower humidity will accelerate curing.

APPLICATION INSTRUCTIONS

ELMS® PLATINUM Liquid Membrane™ is a high solids biobased urethane that requires an ideal product temperature range for proper application. Thorough mixing of each container is mandatory. After mixing, please allow product to sit for 5-10 minutes to allow trapped air to evacuate container to protect against product pinholes when applied. Electric pail and drum warmers are highly recommended to maintain ideal working temperatures. A physical product temperature of 65°F-70°F is the lowest ideal working temperature. The coating has flow and a good working viscosity for even mil coverage. Smooth modified can be covered at 2.0 gal/sq and granulated or alligatored surfaces can be applied at 2.5 gal/sq at this temperature range. A physical product temperature of 85°F-90°F has a much lower viscosity (similar to ELMS® 50) and is highly recommended to ease application. This temperature range gives an even coverage of the roller when dipped and rolls out easily.

Note: It is important that the material's temperature is above 65°F and not just the ambient air temperature. This 65°F minimum temperature range will guarantee the best working conditions for applying the product.

Brush, roller, or conventional airless spray equipment may be used to apply ELMS® PLATINUM Liquid Membrane™. Though cold weather applications do not deter the usage of the **ELMS® PLATINUM Liquid Membrane™** product on a properly prepared and dry surface, application lower than 30° F may deter the use of spray equipment due to viscosity changes at lower temperatures.

For airless spray application, **ELMS® PLATINUM Liquid Membrane™** can be sprayed at pressures above 3000 psi. A "typical" airless spray unit would consist of the following:

- A material transfer pump for air motor driven sprayers: 1:1-5:1 compression ratios or a drum siphon for self-contained gas-hydraulic sprayers.
- Basic spray pump capable of developing a minimum of 3000 psi working pressure.
- 200 - 300 ft. of 1/2" high-pressure hose, 3/8" whip optional. Please consult equipment manufacturer for proper tip size for your application.

NOTE: Any airless spray gun designed to operate in the same working spray unit contemplated for use with Green Products, LLC coatings should be used only by experienced professional spray mechanics trained in the safe operation of the high-pressure airless equipment. All equipment should conform to the most recent OSHA safety standard. Contact Green Products, LLC regarding specific application criteria and instruction.

The information contain herein is believed to be reliable. All recommendations or suggestions are made without guarantee in as much as conditions and methods of commercial use are beyond our control. Properties given are typical values and are not specifications unless otherwise stated.

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