BASICUSES

Unisil Roof Coating is designed for protecting a wide range of substrates from the effects of moisture intrusion and weathering. Unisil Roof Coating is particularly effective as a protective coating over polyurethane foam on new or existing roofs, and hot or ambient storage tanks. It provides a barrier to the effects of degradation caused by normal weathering, aging and ultraviolet exposure. Unisil Roof Coating also achieves excellent adhesion to primed concrete, masonry, metal and wood surfaces.

Unisil Roof Coating is a single component elastomer that exhibits a rapid cure when exposed to ambient conditions. Long term elastomeric properties are retained under all types of weather conditions, from sub-zero temperatures to high heat in excess of 250°F (121°C).

Unisil Roof Coating adheres tenaciously to previously applied Unisil Roof Coating, as well as all other silicone coatings tested. A test area should be applied to existing silicones to ensure adequate adhesion on recoats. Surface should be washed using a chemical cleaner, such as United Cleaning Concentrate (UCC), rinsed thoroughly, and allowed to dry. Existing coating that exhibits biological growth in the form of algae, mold or mildew, should be treated prior to application of Unisil Roof Coating. This will kill any residual spores that remain after cleaning and help prevent them from growing up through the new coating.

Unisil Roof Coating white meets Cool Roof Rating Council (CRRC) and EPA guidelines for ENERGY STAR® compliance. Unisil Roof Coating is also sustainable; through periodic recoating, the elastomeric coating can be maintained throughout the life of the building.

PHYSICALPROPERTIES

### UNISIL ROOF COATING

<table>
<thead>
<tr>
<th>Solids by Weight</th>
<th>80% (±2) [ASTM D1644]</th>
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<tbody>
<tr>
<td>Solids by Volume</td>
<td>68% (±2) [ASTM D2897]</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>456 psi (±25) (3.1 MPa) @ 73°F (23°C)</td>
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<tr>
<td></td>
<td>580 psi (±25) (4.0 MPa) @ 0°F (-17°C) [ASTM D412]</td>
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<tr>
<td>Elongation</td>
<td>234% (±10%) @ 73°F (23°C), initial 342% (+10%) @ 0°F (-17°C), after 5,000 hours weathering [ASTM D412]</td>
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<tr>
<td>Tear Resistance</td>
<td>37 psi [ASTM D524]</td>
</tr>
<tr>
<td>Permeance</td>
<td>6.1 Perms @ 20 mils (508 microns) [ASTM E90, Procedure B]</td>
</tr>
<tr>
<td>Resistance to Accelerated Weathering</td>
<td>Pass; no cracking or checking after 5,000 hours [ASTM D822/D23]</td>
</tr>
<tr>
<td>Solar Reflective Index (SRI)</td>
<td>108 White [ASTM E190B]</td>
</tr>
<tr>
<td>Emissivity</td>
<td>87% White [ASTM C1371]</td>
</tr>
</tbody>
</table>

VOC <250 g/L [ASTM D3830, Method 24]

Adhesion (Wet) >2.0 over SPP, Hypalon & EPDM [ASTM D933]

Dry Time to Walk On 3-4 hours @ 75°F (24°C), 50% RH

Temperature Limits for Normal Service Conditions -80 to 350°F (-17 to 177°C) @ surface

Low Temperature Flexibility Passes 180 degree flex over 1/2” (1.3 cm) mandrel @ -15°F (-26°C) [ASTM D522, Method B] (1.3 cm mandrel @ -15°F (-26°C) [ASTM D522, Method B])

Fire Resistance UL 790 Class A, FM Class 1, & ASTM E108

Water Leakage Pass [ASTM D7261]

Moderate Rain Pass [FM 4470 4.4]

Resistance to Traffic Pass [FM 4470 4.4]

Standard Colors White, Light Gray, Light Tan

APPLICATION INFORMATION

SUBSTRATE PREPARATION: Surfaces to be coated shall be completely dry and free of any degraded foam, grease, oil, dirt, or other contaminants that could interfere with proper adhesion. Any physical damage shall be repaired before coating application commences.

MIXING: Mix containers with an air-driven power mixer, taking care not to incorporate air into the product. Use immediately to avoid reacting in the container to trace amounts of moisture. Containers that have been stored for any length of time may develop a skin/film on top of the coating; this should be removed prior to mixing.

APPLICATION: Store Unisil Roof Coating in a warm area long enough to bring material temperature to 70°F (21°C) prior to application. Each coat shall be applied in a direction perpendicular to the previous coat. Edges of flat roof areas shall be precoated in a “picture frame” configuration. Apply product with an airless sprayer, covering the surface at an even rate. Use an airless spray pump with a 2 gallon per minute (7.6 L/minute) output and 2,500 psi (17,238 kPa) pressure capability, fed with 5:1 transfer pumps. Use a reversible, self-cleaning tip with orifice size 0.030” (0.76 mm) and a fan angle of 50°. Filter screens should be 30 mesh or larger. Use a ½” (12.7 mm) minimum inside diameter hose. Apply at a rate of 100 ft²/gallon (2.5 m²/L) per coat. Must be applied in two or more separate coats to ensure proper coverage and cure rate,

continued on next page
## Application Information, Cont’d.

and a pinhole-free continuous film. Each coat must be dry and cured before the next coat is applied. While this will normally require 2 to 4 hours, resistance to wash-off from light rain is typically achieved within 30 minutes.

## Limitations & Precautions

Unisil Roof Coating is affected by moisture and must be protected from moisture contamination. Keep all containers tightly closed during storage. Containers are factory sealed with an inert gas to prevent contamination. After opening, if all material is not to be used, containers must be purged with nitrogen or dry air and tightly sealed to protect from moisture contamination. Remove any skin prior to mixing the material.

Solvents in Unisil Roof Coating are flammable. Use only in a well ventilated area. Keep away from heat, sparks, open flame or lighted cigarettes. Use explosion-proof mixing and application equipment that has been grounded and bonded.

If used in cryogenic storage or cold temperature storage applications, a vapor barrier must be applied prior to Unisil Roof Coating. Not recommended for immersion conditions. While it will withstand ponding water typically encountered on flat roofs, the National Roofing Contractors Association considers excessive ponding water on any roof unacceptable. Refer to NRCA manual for additional information.

Unisil Roof Coating is slippery when wet, as are loose roofing granules. Exercise caution when walking on a roof under these conditions.

If used indoors, provide mechanical exhaust ventilation. During indoor spray operations, air line masks or positive-pressure hose masks must be worn. Avoid contact with eyes and contact with skin.

Adequate precautions must be taken when applying Unisil Roof Coating to occupied buildings to ensure that air conditioners and ventilation units are turned off and covered to prevent solvent vapors from entering the building. Windows should also be kept closed. Signs should be posted around the area to advise building occupants or visitors of the spray activity.

It is good roofing practice to schedule an annual cleaning of the roof surface. This will eliminate the accumulation of leaves, dirt, debris and other contamination. It will also alert the Owner to any mechanical damage or other problems that may compromise the integrity of the roofing system. Roofs subject to a high degree of traffic or pollution fallout may require more frequent cleanings.

### Applicable Standards:

- ASTM D1644
- ASTM D2697
- ASTM D412
- ASTM D624
- ASTM E96
- ASTM D822
- ASTM E1908
- ASTM C1371
- ASTM D3690
- ASTM D903
- ASTM D522
- ASTM D7281
- FM 4470

## Safety & Handling

For additional information, refer to OSHA guidelines and product Safety Data Sheets (SDS). If personal exposure concentrations cannot be maintained below the appropriate OSHA/NIOSH exposure limits using engineering controls or natural ventilation, an approved respirator may be appropriate based on employer-determined exposure levels.

## Clean Up

Use VM &P Naphtha or Mineral Spirits to thoroughly flush equipment. Leave solvent in the lines and equipment until next use. It is not recommended practice to leave product in the pump or hoses.