



# ALIPHATIC URETHANE 510

**DESCRIPTION:**

Aliphatic Urethane 510 is a technologically-advanced, high-solids, single-component, moisture-cure, bright white polyurethane elastomer coating. It is uniquely formulated for the protection of sprayed-in-place polyurethane foam insulation and traditional roofing structures, such as EPDM single-ply membrane and BUR surfaces. Once cured, this liquid-applied, moisture-curing polymer provides a durable, seamless, flexible, and waterproof membrane that resists lateral movement, shear, and will allow for normal expansion and contraction. Mil for mil, Aliphatic Urethane 510 provides greater UV protection than similar generic coatings and offers increased resistance to moisture penetration through its lower moisture vapor permeability values. Due to its moisture-cure properties, a longer production window can be achieved during application.

**ADVANTAGES**

- Superior protection—forms a durable, weather-resistant, rubber-like seal
- Excellent UV protection—prevents premature degradation
- Superior adhesive and cohesive strength
- Reduces daily expansion and contraction (thermal cycling) of roofing substrates
- Excellent reflective properties that help to reduce cooling costs
- Superior elongation, tensile strength, and resistance to dirt pick-up

**BASIC USES:**

Aliphatic Urethane 510 was specifically developed as a bright white protective top coat for sprayed-in-place polyurethane foam roofing and single-ply membranes. It has excellent adhesion and may be used for protection of conventional roof systems including—but not limited to—EPDM, TPO, PVC single-ply membranes, and asphalt-based systems.

**INSTALLATION:**

- **Surface Prep:** All surfaces to be coated must be clean, dry, and paintable. It may be necessary to power wash and/or prime to enhance adhesion. See application guidelines for more details.
- **Application:** This product may be applied directly to any clean, dry surface with medium nap rollers, soft brushes, or conventional airless spray equipment. Successive and/or top coats **MUST** be applied to the base or to intermediate coats within 48 hours to ensure proper adhesion. Apply product at the rate of 1.25 gallons per 100 sq. ft. per coat. Minimum dry mil thickness shall be 25 mils. Do not apply if ambient temperature falls below 50° F. Product application should be suspended immediately and our technical service personnel contacted if the results being obtained are less than desirable.

**TECHNICAL DATA:**

|                      |  |
|----------------------|--|
| ADHESION:            | Exceeds tensile  |
| VISCOSITY:           | 3,000±1000 cps   |
| TENSILE STRENGTH:    | 1100 psi ± 25  |
| ELONGATION:          | 350% ± 50%   |
| SOLIDS BY WEIGHT:    | 79%, ASTM D-1644   |
| SOLIDS BY VOLUME:    | 74%, ASTM D-2697   |
| FLASH POINT:         | 93° F  |
| HARDNESS:            | 69, Shore A  |
| CURE TIMES:          | Dry-to-touch: 6 hours<br>Tack-free: 12-16 hours<br>Recoat: 12-16 hours |
| PERMEABILITY:        | .02 perms  |
| WATER ABSORPTION:    | 1.6%   |
| SOLAR REFLECTANCE:   | 87%  |
| THERMAL EMITTANCE:   | 91%  |
| SHELF LIFE:          | 90 days  |
| WEIGHT:              | 8.5 lbs. per gallon ± 0.2  |
| CLEAN UP:            | VM & P   |
| SERVICE TEMPERATURE: | -50° to 200° F   |

**AMERICAN WEATHERSTAR LLC**

8095 Padgett Switch Rd. | Irvington, AL 36544 | USA  
[www.americanweatherstar.com](http://www.americanweatherstar.com) | [info@americanweatherstar.com](mailto:info@americanweatherstar.com)  
 Toll Free: 800-771-6643 | Fax: 251-479-3602

