AT 4430 - ALPHATEK ROOF COATING

NANO-CERAMIC COATING

APPLICATION INSTRUCTIONS

1. PRODUCT DESCRIPTION

AT 4430 is a single-component, water-based, fire-rated, siloxane-acrylic engineered elastomeric coating. AT 4430 provides excellent insulation protection and is a very effective weather barrier for many types of insulation and roofing materials. It provides excellent UV protection. It exhibits superior adhesion to many substrates and has a high hide capability to create an aesthetically pleasing appearance. The coating is designed to dry faster than most acrylic coatings. Unlike most cool roofing solutions, AT 4430 combines reflective AND thermal insulation properties. AT 4430 therefore provides highly efficient insulation performance over multiple years thereby reducing maintenance and total lifecycle costs while delivering maximum ROI in energy savings.

2. SURFACE PREPARATION

- Surfaces must be free from dirt, rust, oils, moisture and other containments before starting the coating process.
- Power washing of the substrate is recommended.

3. APPLICATION

- As with any new material, always test application and finished properties on a low value test article or panel before working on valuable surfaces.
- Some solvents may degrade AT 4430. If solvents are to come in contact with AT 4430, the user should pre-test the solvent on a cured sample prior to its application.
- Mix coating well before applying to ensure that no solids have settled to the bottom of the container.
- Airless prayer is recommended for large applications.
- Brush or roller is recommended for flashing, small inaccessible areas or where overspray may be a problem. Use a paintbrush or a standard medium coarse nap roller.
- **Airless Spray Equipment**:
  - Airless spray equipment should be capable of 1 gallon per minute capacity at 3000 psi.
  - AT 4430 is designated a "medium elastomeric coating" with medium viscosity for pump purposes.
  - The use of 1/2" high-pressure hoses is recommended.
  - The airless spray gun should be equipped with a ball-bearing swivel for ease of handling.
  - Recommended orifice size is .025" to .035" diameter, wide-angle fan pattern.
  - A reverse-a-clean nozzle is recommended.
  - Exact orifice size will vary with temperature of the material and weather conditions.
- **General Application Guidelines**
  - Do not apply AT 4430 below 40°F (4^0C) or in weather conditions where the temperature will fall below 40°F during the curing cycle.
  - The substrate temperature range for application is 40°F – 120°F (4^0C – 49^0C).
  - The service temperature range is -35°F – 180°F (-37^0C – 82^0C).
  - Prior to the application of any topcoat over new or freshly applied asphalt based product, consult with the asphalt product manufacturer or NRCA guidelines for necessary asphalt cure times.
  - AT 4430 must not be applied during inclement weather or if any precipitation is imminent.

- Application of materials with power spray equipment will require some masking and possible erecting wind screens to prevent overspray damage to surrounding structures, building surfaces, vehicles or other property or persons.

- **Application on Polyurethane Foam**
  - Airless spray equipment should be capable of 1 gallon per minute capacity at 3000 psi.
  - Follow any manufacturer detailed instructions regarding characteristics of the polyurethane foam and preparation of the foam surface before coating.
  - Apply 2 coats for most applications.
  - The first coat of gray AT 4430 should be applied at 1-1 ½ gallons per 100 square feet (one liter per 1.6 – 2.5 square meters) as a base coat. For best results, the base coat of AT 4430 is typically back rolled.
  - After approximately 8-24 hours, apply the second coat at the rate of 1-1 ½ gallons per 100 square feet (one liter per 1.6 – 2.5 square meters).
  - If desired, roofing granules may be embedded into a final tack coat. Apply AT 4430 at ½ gallon per 100 square feet (one liter per 4.9 square meters).
- **Application on Metal**
  - AT 4430 is applied as a finish coat to metal roofs that have been properly cleaned, prepared, and primed where needed to protect the metal from further deterioration or rust.
  - The AT 4430 is applied at 1.5 gallons per 100 square feet (1 liter per 1.64 square meters).
  - For best results, building final dry film thickness in two coats. Each coat should be around 0.75 gallon per 100 square feet (1 liter per 3.3 square meters).
- **Other Substrates**
  - AT 4430 may be used to waterproof, seal, and protect a variety of substrates such as single-ply membranes, concrete, plywood, board stock roof insulation, aged modified bitumen and aged BUR (with the use of an acrylic asphalt primer).
  - Adhesion of AT 4430 should always be checked. Apply 6-12" square of AT 4430 and embed a piece of polyester fabric into the coating, leaving a trail of the fabric exposed. Allow 2-3 days for the AT 4430 to cure and then perform a 900-pull test of the fabric tail to test the adhesion of the coating to the substrate.
  - To the properly prepared substrate, apply a base coat of AT 4430 at 1-1 ½ gallons per 100 square feet (one liter per 1.6 – 2.5 square meters).
  - The finish coat of AT 4430 is applied at rate of 1-1 ½ gallons per 100 square feet (one liter per 1.6 – 2.5 square meters) after the base coat has cured.

7. DRYING & CURING TIMES

Solids	65% by weight
Drying Time	***8-24 hours in ambient conditions.***
Curing Time	***2-3 days in ambient conditions.***

8. COVERAGE RATE

Coverage will be approximately 130 square feet per gallon (3.2 square meters per liter) @ 8 mil thickness.

9. STORAGE STABILITY & SHELF LIFE

The shelf life is one year when stored in the original, unopened container. Store containers in a well-ventilated and covered area away from extreme heat and moisture. Contact your ALPHATEK representative if you have any questions about the products or its uses.

10. SAFETY

Avoid prolonged and repeated contact with skin. Do not take internally. Refer to the Safety Data Sheet for this product prior to use.