

# AT-745 – FR INSULATION COATING

AEROGEL COATING

APPLICATION INSTRUCTIONS

## 1. PRODUCT DESCRIPTION

AT-745 FR Insulation Coating is a unique high performance aerogel fire resistant coating that also offers excellent thermal insulation, sound dampening and waterproofing properties. It will adhere to most metal, composite and polymer surfaces. AT-745 is extremely durable to both abrasion and most common chemicals. It is an elastomeric coating with very good flexibility and easy build properties. AT-745 is easy to apply by sprayer, brush or roller.

## 2. SURFACE PREPARATION

- Surfaces should be dry and free from grease, dirt or rust. Light sanding will improve adhesion in most cases.
- Coating is compatible with most substrates including metals, fiberglass-composite surfaces, wood, and polymers. Note: applying over foam, cork, or vinyl/rubber mats is not 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.
- AT-745 is a single component coating.
- Coating should be lightly mixed prior to application.
  - Always use a low speed mixer blade (“Jiffy Mixer” or similar) or stir stick.
  - Product will initially appear to be a thick semi-dry material. Once mixing is initiated it will start to liquefy.
  - If the consistency is too viscous for a specific application method, add small amounts of filtered or distilled water until the desired consistency is achieved.
  - Always keep the container closed when not in use as evaporation will take place, thickening the product quickly.
- Recommend application temperature is 60°F to 110°F.
- Coating may be applied by sprayer, brush or roller:
  - **Brush or Plastic Spreader:**
    - Use a 4” wide nylon bristle brush
    - Keep a lot of coating on the brush
    - Use short strokes applying a thick 10-12 mils per coat.
    - Avoid using a “back and forth” brush motion, as this will tend to thin out the coating thickness.

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- **Spray:**
  - Recommend use of a pressure pot system (e.g. Binks 2001 sprayer) with a large orifice (tip of 565, air nozzle of 66SD, a fluid nozzle of 66SS or a gel tip)
  - Recommend 30-35 PSI.
  - Hold the gun tip approximately 14" from the surface. This should allow for a 10-12 mil coating thickness to be applied per coat.
- **Roller:**
  - Apply with a thin foam roller.
  - Apply slight downward pressure to achieve the 10-12 mils recommended coating thickness.
  - Back brushing with a fine bristle brush maybe needed to lay down any stippling left behind by the roller.
- **Recommended Coating Thickness:**
  - Maximum performance is achieved at 40-50 mils applied thickness.
  - If a different final coating build is desired, it is recommended to test performance on a control panel prior to large-scale application.
  - Best results will come from applying several 10-12 mils coating layers versus 1 or 2 thicker coats.
  - Ensure previous coat is cured prior to adding another coat. Applying a second or third coat over a partially cured previous layer may cause blisters, delamination or failure of the coating as a result of expansion of entrapped moisture or other vapors within the coating layers.
- Clean up with water while coating is still wet.

## 4. DRYING & CURING TIMES

<b>Solids</b>	78%
<b>Drying Time (15-20 mils)</b>	30 – 60 minutes at room temperature. Dry time can be reduced by use of a warm airflow (110°F max). Avoid use of space heaters or similar equipment, as they will tend to raise the relative humidity & thereby slow the drying time.
<b>Curing time (15-20 mils)</b>	<b>Initial:</b> 1 hour at room temperature. <b>Complete:</b> 24 hours at room temperature. During the first hour, water dissipates from the applied coating, allowing the material to become dry to the touch. At this point the internal chemistry starts a reaction the initiates the 2nd curing step over the next 24 hours.



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	Recommended to allow free flowing air over the applied coating during curing. Curing time can be reduced by use of a warm airflow (110°F max).
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## 5. COVERAGE RATE

- Cover approximately 30 square feet per gallon at 40 mils (0.74 square meters per liter at 1 mm).

## 6. 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. Do NOT use coating to freeze. Contact your ALPHATEK representative if you have any questions about the products or its uses.

## 7. SAFETY

Refer to the Safety Data Sheet for this product prior to use. Use in a well ventilated area. If that is not possible, use a NIOSH approved self-contained breathing apparatus or vapor filters on a mask. Protective gloves and safety glasses should be worn at all times.