NANOMYTE[®] SuperAiTM Durable, Corrosion Resistant, Anti-Ice Coating

NEI Corporation

NANOMYTE® SuperAi is a nanocomposite coating that imparts anti-icing properties to the underlying substrate. The transparent coating also provides a hard, dense, and smooth finish. Surfaces treated with SuperAi exhibit reduced ice adhesion, thereby preventing ice buildup. SuperAi is a versatile coating that can be applied directly on a variety of substrate materials, including plastics, metals, glass, concrete and ceramics. SuperAi cures under ambient conditions.

In independent tests performed at multiple sites, it has been shown that NANOMYTE[®] SuperAi reduces the adhesion strength of ice by as much as 80%, compared to bare metal and painted surfaces. This in turn leads to reduced ice accretion. The use of SuperAi in applications such as wind turbines, overhead high voltage power lines, transportation, marine, and others enhances productivity and energy efficiency, thereby providing a good return on investment.

The coating can be applied by brushing, spraying or wiping. The dry film thickness can be adjusted to be in the range of 5 - 15 microns ($1/5^{th}$ to $3/5^{th}$ of a mil). Only one coat is required to cover the substrate. The liquid coating solution is available in liter and gallon quantities.



Left: Aluminum coated with NANOMYTE[®] SuperAi exhibits about 80% reduction in ice adhesion. Right: Uncoated surface shows cohesive failure within ice, while one coated with SuperAi had adhesive failure at the interface.

FEATURES

- Decreases ice adhesion by 60 to 80%
- Transparent and glossy finish, with low haze
- Dries thin: < 1 mil
- Low VOC
- Product can be applied to a variety of substrates
- Low viscosity formulation spreads quickly – even over complex surfaces

BENEFITS

- Weather Resistant Hydrophobic surface repels water and reduces ice build up
- Easy-to-Clean Lower friction, slippery surface makes it resistant to contamination and easier to clean up
- Easy Application Can be applied by brush, spray, or wipe, with <u>no</u> primer or curing required
- **Durability** Increases the service life of coating by preserving protective functions
- Cost Savings Reduces raw material, labor, and energy cost of repainting or recoating
- Maintenance Eliminates the need to frequently repaint or replace damaged coatings

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