



AEROLON[®]

**ULTRA-LOW
HEAT TRANSFER**

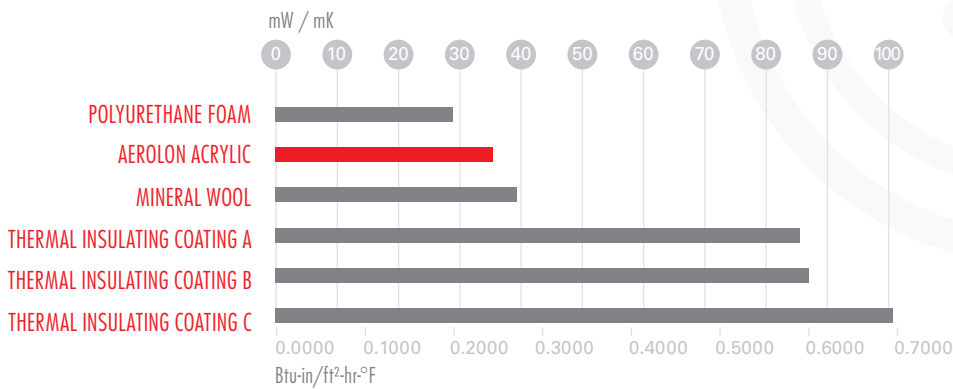
THERMAL INSULATING COATING

IMPROVES EFFICIENCY AND REDUCES ENERGY COSTS

Tnemec has combined its leading, high-performance coatings technology with the world's best insulating solid (aerogel) to produce Aerolon. This inventive formulation surpasses the insulating qualities of fluid-applied thermal coatings that contain suspended ceramic beads. It also performs on par with the most widely used conventional forms of industrial insulation, while overcoming their considerable drawbacks or deficiencies.

Mineral wool has good thermal characteristics, but it's also very vulnerable to moisture infiltration. This compromises its thermal qualities and leads to corrosion under insulation (CUI), a major problem and expense. Other fluid-applied coatings may have similar bonding characteristics to Aerolon, but they fall short on film thickness and insulating performance. By any measure of reliable thermal efficiency, Aerolon is not just best in class; it's in a class by itself.

K-VALUE THERMAL EFFICIENCY COMPARISON (AEROLON VS. OTHER INSULATION OPTIONS)



The lower the K-value, the better the insulating properties. This shows how Aerolon compares with conventional insulation and other thermal insulating coatings.

HOLDING TANK COATING PROJECT

These spotlight images represent before and after photos of a holding tank coating project. The Aerolon coatings system is applied at right. A water-based epoxy primer was used as a corrosion-resistant foundation for the Series 971 Aerolon Acrylic

coating. Then a high-performance topcoat was added. Note that rather than the time-consuming process of cutting, shaping, wrapping and cladding the tank, the Aerolon coatings system was spray-applied in much less time.



BEFORE

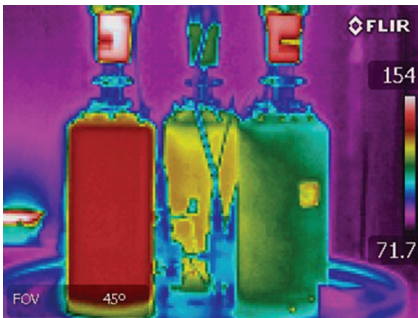
AFTER



TANK TEST DEMONSTRATES AEROLON'S SUPERIOR THERMAL EFFICIENCY

Under controlled test conditions, Aerolon's insulation value was compared against a competitive coating, containing hollow ceramic beads, and also an uncoated tank. All three tanks were heated to the same, constant internal temperature. Using thermal imaging (photo below), you see the bright red surface of the uncoated tank (A), indicating high-heat transfer. The ceramic-bead-coated tank (B) shows yellow-orange hot spots. In this case the heater operated at an average of

27% less energy consumption than the uncoated tank in maintaining the same temperature. The tank on the right (C) is coated in Aerolon, except for a small cutout area. The surface of the Aerolon-coated tank shows very little heat transfer (compare cool blue-green surface color vs. yellow-orange cutout section), and the heater operated at an average of 45% less energy consumption than the uncoated tank, indicating greater thermal efficiency.



A B C

PERFORMANCE PROVEN BY COMPARISON

In side-by-side comparisons, Aerolon's beneficial combination of insulating and protective properties represent a more effective solution than virtually all other available options.

When applied to piping, tanks or steel in industrial facilities, refineries, manufacturing plants or water treatment plants...

AEROLON PROVIDES:

- Increased thermal efficiency and energy savings
- Personnel safety/protection from hot surfaces
- Exceptional Corrosion Under Insulation (CUI) resistance
- Excellent substrate bonding and durability
- Superior condensation control characteristics
- Greater ease of application (including trouble-free, labor-saving touchup/repair)



INNOVATION IN EVERY COAT™

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