



AEROLON[®]

**RESISTS CORROSION
UNDER INSULATION**

THERMAL INSULATING COATING

RESISTS CORROSION UNDER INSULATION

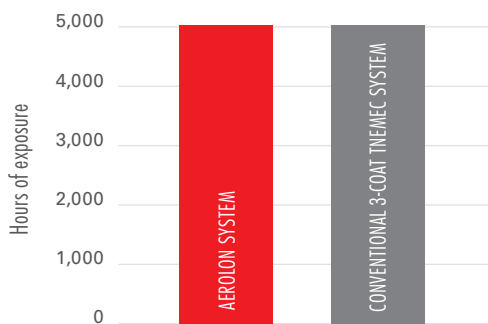
Tnemec has combined its leading, high-performance coatings technology with the world's best insulating solid (aerogel) to produce Aerolon. This coating delivers excellent thermal efficiency. Just as important, it bonds tightly to substrate surfaces, forming a durable barrier to resist corrosion under insulation (CUI), which is a widespread, destructive and costly issue impacting industrial facility infrastructures today.

As an example, commonly used mineral wool has good thermal characteristics, but it is also very vulnerable to moisture infiltration that can cause CUI. The problem often goes undetected until it is too late, because damage can't easily be seen under the outer cladding.

Another advantage is that Aerolon is part of a complete coatings system. Tnemec offers a variety of primer and topcoat options based on temperature and corrosive environment. The primer bonds to the substrate to resist corrosion. Then Aerolon tightly adheres to the primer, and it's finished with a thermal topcoat that features suspended ceramic beads for additional energy efficiency. Applied in combination, it represents one of the most effective, corrosion-resistant coatings systems in the industry.

COATINGS SYSTEM COMPARISON

ASTM G85, Standard Practice for Modified Salt Spray (Fog) Testing



This comparison shows that an Aerolon coatings system (1224/971/1028T) is equally as effective at resisting corrosion as a standard 3-coat Tnemec system (394/20/73) designed specifically for this purpose. Both systems showed no signs of blistering, cracking, rusting, or delamination of film after 5,000 hours of testing.



AEROLON TEST PANEL

The Aerolon-coated panel (above) demonstrated excellent corrosion resistance after being submitted to ASTM G85, commonly referred to as "Prohesion." Primed with a zinc-rich urethane, yet left untopcoated, the Aerolon panel was enclosed in a cabinet with vapor composed of 0.05% sodium chloride and 0.35% ammonium sulfate from solution. The panel was exposed – alternately for one hour each – to vapor at 75°F and dry air at 95°F. After 5,000 hours of testing, the Aerolon panel showed no signs of blistering, cracking, rusting, or delamination of film.



WATER TREATMENT PLANT BOILER LINE PROJECT

The flooding of a Nashville, Tennessee water treatment plant led to the discovery of significant corrosion under insulation (right), which otherwise, may have continued to go unnoticed, causing even more widespread, irreparable damage. The Tnemec Aerolon coatings system was applied to the pipelines (far right) in order to prevent future incidence of corrosion. The application included a water-based corrosion-resistant epoxy primer, Series 971 Aerolon Acrylic and a high-performance topcoat.

INITIAL CUI DAMAGE



REPAIR WITH AEROLON



EASY TOUCH-UP

These images show how easily Aerolon can be spot-repaired with a trowel when gouged or damaged, rather than requiring whole sections to be repaired or replaced as necessary with many other types of insulation. The ability to easily and very cost-efficiently restore the coating's integrity with a simple touch-up is a big advantage in extending life cycles. Contact a Tnemec Technical Service Representative for detailed repair instructions.

1. Apply Aerolon to damaged area.



2. Smooth and finish application.



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:

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



INNOVATION IN EVERY COAT™

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