

Tnemec Fluid Applied Thermal Break Short Form Specification

2.02 MATERIALS

- A. Tnemec Series 971 Aerolon Fluid Applied Thermal Break and Series 945 Aerolon Thermal Tape conforming to the following requirements: Material may be shop and/or field applied. Apply directly over Tnemec Series 394 PerimePrime or Series 1224 Epoxoline WB Primer as called for in shop primer section 2.01.6, topcoat if architecturally exposed with Tnemec Series 1029 Enduratone or Series 1095 EnduraShield @ 3.0 mils DFT. If not exposed to view no topcoat is required.
- B. Thermal Conductivity - The Fluid Applied Acrylic Insulative Coating "Aerolon" is a microporous-based material thermal break. It shall be applied at the required thickness to provide the required R - Value of R - 0.10 to R- 1.5. In no case, shall the thickness be less than the required R value using a thermal conductivity of no more than **36mW/mK for the Tnemec Series 971 Aerolon Fluid Applied Thermal Break and 50mW/mK for Tnemec Series 945 Aerolon Thermal Tape.** No "R" equivalent data is acceptable.

Series 971 Aerolon Fluid Applied Thermal Break ASTM Testing - Third-Party Results

- ASTM D5894 – 5,000 hrs. Prohesion
- ASTM E84 – Class A
- ASTM B117 – 5,000 hrs. Salt Spray
- ASTM D870 – 18 months continuous tap water immersion
- ASTM D4585 – 2,000 hrs humidity with no effect
- ASTM D870 Method B – 2,000 hrs. 140°F DI Water Immersion
- ASTM D4060 (CS-17 Wheel, 1,000g load) – No more than 50.2 mg loss after 1,000 cycles
- ASTM C518 – 0.0356 W/m²K @77 °F
- ASTM C272 – Less than 1% weight gain after 24-hour cure
- NORSOK M501/ISO 20340 - 25 cycles (each cycle consists of 72hrs weathering, 72hrs of salt spray and 24hrs of cold temperature exposure)
- 3 Year (12 months) Roof Exposure No Affect
- Immersion – No blistering, cracking, rusting, or delamination of film after 6 months of continuous immersion in 104°F seawater.
- Compatible with WR Grace Mk6, 106 and Z146 and Isolatak equal densities
- Compatible with DOW 790 Sealant

Series 945 Aerolon Thermal Tape - ASTM Testing

- ASTM D903 - 180° peel strength
- ASTM C177 - 0.0497 W/m²K @79°F
- ASTM E96 – WVT of 21.518g/m²/hr
- ASTM E84 – Class A
- ASTM D4585 – 5,000 hours humidity with no effect

Note 1- Tnemec Series 971 Aerolon Fluid Applied Thermal Break is to be applied to steel members 18" from the exterior of the building facade and continuously back the width of wall section, 18" to the warm side of the wall section to the interior of the building past the AVB to the inside face of the wall cavity. For Tnemec Series 971 Aerolon Fluid Applied Thermal Break on W sections thickness is 60-80 mils DFT, for HSS tubes 120-150 mils DFT. If space has less than 36" overall, call Tnemec Representative for recommendation of thickness for non-standard design.

Note 2- Field erection/handling of coated steel member shall be in accordance with AISC for handling and erecting a finished product. Off set Aerolon coated steel on dunnage to minimize damage.

Topcoats- If required, apply Tnemec Series 1029 Enduratone, Series 1095 Endura-Shield or Series 1071 Flouronar as topcoats for non-immersion services. Apply Tnemec Series 22 Epoxoline for areas where immersion is required.

END OF SECTION

Specifier Notes: This product selection guide is written according to the Construction Specifications Institute (CSI) Format, including *Master Format*, *Section Format*, and *Page Format*, contained in the *CSI Manual of Practice*.

The section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the drawings.

Delete all "Specifier Notes" when editing this section.

Specifier Notes: This section covers Tnemec high-performance coating systems for commercial facilities.

This specification is only a guide listing various coating system options for various environments and should not be used as a final specification. Additional coating systems not listed in this specification are available and may be more appropriate for your coating application. To finalize this specification, please contact

www.rightergroup.com

Many coatings contain organic solvents. Consult Righter Group, Inc. for compliance to local VOC regulations.

Righter Group, Inc.
187 Ballardvale Street, Suite A190
Wilmington, MA 01887
Phone: (800) 533-3003 Fax: (800) 988-9824

February 2022