



AEROSPACE MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
400 COMMONWEALTH DRIVE, WARRENDALE, PA. 15096

AMS 3138/5

Issued 10-15-80
Revised

COATING MATERIAL, FLUOROCARBON, ELASTOMERIC Anti-Static Topcoating, White

1. SCOPE:

- 1.1 Form: This specification covers a fluorocarbon elastomeric coating material for fiber-reinforced-resin composite structures in the form of a two-component brushable or sprayable liquid.
- 1.2 Application: Primarily as a topcoating over AMS 3138/1, AMS 3138/2, or AMS 3183/3 base coating for protection of aircraft and missile radomes and other components from rain-erosion, aerodynamic heating, thermal flash, static, and weathering.

2. APPLICABLE DOCUMENTS: Shall be as shown in AMS 3138 and as follows:

- AMS 3138/1 - Coating Material, Fluorocarbon Elastomeric, Rain-Erosion Resistant, Black
AMS 3138/2 - Coating Material, Fluorocarbon Elastomeric, Rain-Erosion and Thermal-Flash Resistant, White
AMS 3138/3 - Coating Material, Fluorocarbon Elastomeric, Rain-Erosion Resistant, Colored

3. TECHNICAL REQUIREMENTS:

- 3.1 Basic Specification: The complete requirements for procuring the coating material described herein shall consist of this document and the latest issue of the basic specification, AMS 3138.
- 3.2 Material: Shall be a pigmented fluoroelastomer solution and a curing agent, for application by brushing or spraying.
- 3.2.1 Color: Shall be white and of sufficient intensity to hide completely the surface of the substrate when applied at the specified coating thickness.
- 3.3 Cured Coating Properties: Shall be as follows:
- 3.3.1 Rain-Erosion Resistance: The average time to erode through the full thickness of this material applied over AMS 3138/1, 3138/2, or AMS 3138/3 coating material shall be not less than 80 min. for each specified condition.
- 3.3.2 Electrical Transmission: The electrical transmission of panels coated with this material over AMS 3138/1, AMS 3138/2, or AMS 3138/3 coating material shall be not less than 90% of that of uncoated panels for each specified condition.
- 3.3.3 Surface Resistivity: The surface resistivity of panels coated with this material over AMS 3138/1, AMS 3138/2, or AMS 3138/3 coating material shall be not less than 0.5 nor more than 15 megohms per square.
- 3.3.4 Thermal Flash Resistance: The coating applied over AMS 3138/2 coating material shall not burn or char. Discoloration of the coating will be acceptable.

4. QUALITY ASSURANCE PROVISIONS: See AMS 3138.

SAE Technical Board rules provide that: "All technical reports, including standards approved and practices recommended, are advisory only. Their use by anyone engaged in industry or trade or their use by governmental agencies is entirely voluntary. There is no agreement to adhere to any SAE standard or recommended practice, and no commitment to conform to or be guided by any technical report. In formulating and approving technical reports, the Board and its Committees will not investigate or consider patents which may apply to the subject matter. Prospective users of the report are responsible for protecting themselves against liability for infringement of patents."