SAE Aerospace
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AEROSPACE MATERIAL SPECIFICATION

SAE AMS3100/3A

Issued 1996-02
Cancelled 2008-12

Superseding AMS3100/3

Adhesion Promoter For Polysulfide Sealing Compounds Water Based

RATIONALE

This slash sheet was incorporated into the basic specification AMS3100B.

CANCELLATION NOTICE

This specification has been declared “CANCELLED” by the Aerospace Materials Division, SAE, as of December 2008 and has been superseded by AMS3100B. The requirements of the latest issue of AMS3100B shall be fulfilled whenever reference is made to the cancelled AMS3100/3. By this action, this document will remain listed in the Numerical Section of the Index of Aerospace Material Specifications, noting that it has been superseded by AMS3100B.

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AEROSPACE MATERIAL SPECIFICATION

Submitted for recognition as an American National Standard

SAE AMS 3100/3

Issued FEB 1996

ADHESION PROMOTER For Polysulfide Sealing Compounds Water Based

1. SCOPE:

1.1 Form:

This specification covers one type of adhesion promoter in the form of a liquid.

1.2 Application:

This material has been used typically to enhance the adhesion of polysulfide sealing compounds or adhesives to MIL-C-27725 integral fuel tank coating or other substrates such as painted or primed surfaces and bare titanium alloys, but usage is not limited to such applications.

2. APPLICABLE DOCUMENTS:

See AMS 3100.

3. TECHNICAL REQUIREMENTS:

3.1 Basic Specification:

The complete requirements for procuring the adhesion promoter described herein shall consist of this document and the latest issue of the basic specification, AMS 3100.

3.2 Materials:

Shall be a clear or dyed liquid. The solvent shall be distilled water.

3.3 Properties:

Adhesion promoter shall have the following properties, determined in accordance with test methods listed in AMS 3100:

3.3.1 Color: Adhesion promoter shall be either clear or tinted pink. The tinted adhesion promoter shall impart a pink stain on the substrate when tested for color. The clear adhesion promoter shall not impart a colored stain when tested for color.

3.3.2 Peel Strength: Shall be as specified in Table 1, test numbers 1 through 5.

TABLE 1 - Properties and Testing Parameters

Test No.	Panel Material and Preparation (I), (6)	Adhesion Promoter Applied	Immersion Medium	Minimum Peel Strength Pounds/Force/Inch	Minimum Peel Strength N/m	Cohesive Failure, %
1	4.5.2.1.2	No	None	Report	Report	0 (7)
	4.5.2.1.5	No	None	Report	Report	0 (7)
	4.5.2.1.2	Yes	None	20	3500	100
	4.5.2.1.5	Yes	None	20	3500	100
2	4.5.2.1.5	No	(2)	Report	Report	0 (7)
	4.5.2.1.5	Yes	(2)	20	3500	100
	4.5.2.1.4	Yes	(2)	20	3500	100
	4.5.2.1.2	Yes	(2)	20	3500	100
3	4.5.2.1.5	Yes	(3)	20	3500	100
	4.5.2.1.4	Yes	(3)	20	3500	100
	4.5.2.1.2	Yes	(3)	20	3500	100
4	4.5.2.1.6	Yes	(4)	20	3500	100
	4.5.2.1.7	Yes	(4)	20	3500	100
5	4.5.2.1.6	Yes	(5)	20	3500	100
	4.5.2.1.7	Yes	(5)	20	3500	100

NOTES:

1. Paragraph references are from the basic specification, AMS 3100.
2. Seven days immersion in equal parts of AMS 2629, Type I, Jet Reference Fluid and 3% aqueous solution of sodium chloride.
3. Seventy days immersion in equal parts of AMS 2629, Type I, Jet Reference Fluid and 3% aqueous solution of sodium chloride.
4. Seven days immersion in ASTM D 1193, Type IV, water.
5. Seven days immersion in 3% aqueous solution of sodium chloride.
6. A minimum of two panels for each condition shall be tested.
7. The intent is to have complete adhesive failure to the substrate.

3.3.2.1 Acceptance peel strength tests shall consist of the following, using as-received adhesion promoter only:

Test 1 Substrate 4.5.2.1.5 and
Test 2 Substrates 4.5.2.1.4 and 4.5.2.1.5

3.3.3 Storage Stability

3.3.3.1 Long-Term Stability: Shall be as specified in Table 1, Tests 1 and 2, using substrates 4.5.2.1.2 and 4.5.2.1.5.