



Engineering Material Specification

Material Name

Specification Number

**TAPE, PAPER BACKED - POLYESTER LAMINATE
PRINTABLE PRESSURE SENSITIVE**

ESA-M3G109-A

1. SCOPE

This specification defines a printable, flatback rope paper, pressure sensitive tape protected with a clear polyester laminate.

2. APPLICATION

This specification was released originally for material used for identification labeling where a high gloss paper backing combined with high tensile and adhesion strength is required. A typical use is underbody coil springs.

3. REQUIREMENTS

3.1 CONDITIONING

All test values indicated herein are based on materials conditioned in a controlled atmosphere of $23 \pm 2^{\circ}\text{C}$ and $50 \pm 5\%$ relative humidity for 24 h prior to testing and tested under the same controlled conditions.

3.2 BREAKING STRENGTH, min 50 lb/in (8.8 N/mm) width
(ASTM D 1000)

3.3 ELONGATION, min 8.0%
(ASTM D 1000)

3.4 ADHESION TO STEEL, min 40 oz/in (440 N/m) width
(ASTM D 1000)

3.5 UNWIND ADHESION, max 35 oz/in (380 N/m) width
(Test Method PSTC-3)

3.6 INITIAL CERTIFICATION

There shall be no blistering, delamination, color fading or excessive adhesive transfer after exposure to the following conditions.

3.6.1 Salt Spray, exposure, min 96 h

Note: The adhesive system must be compatible with any painted substrate over which it will be applied.

Date	Para. No.	Revisions	Approval
			<i>E. J. Francis</i> 11-27-78
1979 01 10		Metricated and Retyped CAC12 823385	<i>J. J. Gindler</i> 11/11/78
1973 04 18		Revised and Redrawn CAC10-719183-2	<i>J. J. Gindler</i> 11-11-78

1978 11 30
Eng Res
June 77 3948-a

Page 1 of 2

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Test Method: Apply tape to test panel using a rubber coated steel roller per ASTM D 1000 (described under adhesion strength). The test panels shall be painted with a water emulsion paint ESA-M62J2-A or as otherwise specified on the engineering drawing.

3.6.2 Heat and Humidity Aging

Test Cycles: 72 h at $121 \pm 3^{\circ}\text{C}$ followed by
72 h at $38 \pm 3^{\circ}\text{C}$ and 95 - 100% relative humidity.

3.7 SUPPLIER'S RESPONSIBILITY

Material supplied to this specification must be equivalent to that originally approved. Changes in formulation or processing shall not be made without prior approval as described in Supplier Procedure I-A.

4. APPROVAL OF SUPPLIERS

Suppliers to this specification must be approved by the affected product engineering office. Procedure for gaining approval of a specific material to a new/existing ES-M specification is contained in Supplier Procedure I-A. Approved new suppliers will be added to the Engineering Materials Approved Source List.

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