

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
29 West 39th Street
New York City

AMS 3640A

Issued 5-1-48

Revised 6-15-53

PLASTIC MOLDINGS Melamine-Formaldehyde, Mineral Filled

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. FORM: Compression or transfer moldings.
3. APPLICATION: Primarily for use in electrical systems as ignition rotors and terminal blocks, where a material of high arc resistance, dielectric strength, and heat resistance is required.
4. TECHNICAL REQUIREMENTS:
 - 4.1 General:
 - 4.1.1 Color and Condition: Unless otherwise specified, a brown to grey, opaque material with a lustrous finish shall be furnished.
 - 4.1.2 Weathering: When specified, the product shall have weather resistance acceptable to the purchaser as determined by a procedure agreed upon by purchaser and vendor.
 - 4.1.3 Corrosion: The product shall not have a corrosive effect on other materials when exposed to conditions normally encountered in service. Discoloration of metal shall not be considered objectionable.
 - 4.2 Physical Properties: The product shall conform to the following requirements; tests shall be performed on the product supplied and in accordance with listed ASTM methods, insofar as practicable.

4.2.1 Flexural Strength, psi, min	8000	ASTM D48-46T
4.2.2 Impact Strength (Notched Izod), ft-lb per in. of Notch, min	0.275	ASTM D256-47T, Method A
4.2.3 Dielectric Strength, volts per mil, min		ASTM D149-44 - Test specimen to be molded disc 0.075 in. thick by 4 in. in diameter
Short Time Test (73 F $\pm$ 5)	400	
Short Time Test (212 F $\pm$ 2)	350	
4.2.4 Arc Resistance, sec, min	120	ASTM D495-48T
4.2.5 Water Absorption (24 hr immersion), % Gain, max	0.15	ASTM D570-42
4.2.6 Specific Gravity, 77 F/77 F, max	2.20	ASTM D792-50, Method A
4.2.7 Shrinkage, in. per in., max	0.002	Bake 0.075 x 4 in. diameter disc for 8 hr at 220 F $\pm$ 2

Section 7C of the SAE Technical Board rules provides that: "All technical reports, including standards approved and practices recommended, are advisory only. Their use by anyone engaged in industry or trade is entirely voluntary. There is no agreement to adhere to any SAE standard, recommended practice, or specification, and no liability to conform to or be guided by any technical report, in formulating and approving technical reports, the Board and its Committee will investigate and 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."