

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 3640 A

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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 ± 5)	400	
Short Time Test (212 F ± 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 ± 2

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