

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 3640

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Revised

PLASTIC MOLDINGS Mineral Filled Melemine-Formaldehyde

1. **ACKNOWLEDGMENT:** A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. **FORM:** Compression or transfer moldings.
3. **APPLICATION:** Primarily intended for electrical systems, for such applications 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 or other deleterious effect on other materials when exposed to conditions normally encountered in service. Discoloration of metal shall not be considered objectionable.
 - 4.2 **Properties:** Unless otherwise specified, the product shall conform to the following requirements; tests shall be performed on the product supplied and in accordance with the listed ASTM methods, insofar as practicable:

<u>Property</u>	<u>Value</u>	<u>Test Method</u>
Flexural Strength, psi, min	8000	ASTM D48-46T
Impact Strength (Notched Izod). ft-lb per in. of notch, min	0.275	ASTM D256-47T
Dielectric Strength, volts per mil, min		ASTM D149-44 - Test Specimen to be molded disc 4 in. in diameter by 0.075 in. thick.
Short Time Test (77 F $\pm$ 5)	400	
Short Time Test (212 F)	350	
Arc Resistance, sec, min	120	ASTM D495-42
Water Absorption (24-hr immersion), per cent gain, max	0.15	ASTM D570-42
Specific Gravity, 77 F/77 F, max	2.20	ASTM D792-44T, Method A
Shrinkage, inches per inch, max	0.002	Bake disc 4 in. in diameter by 0.075 in. thick for 8 hr at 220 F

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