

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 ± 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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