



# AEROSPACE MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.  
485 LEXINGTON AVENUE, NEW YORK, N. Y. 10017

## AMS 3640B

Superseding AMS 3640A

Issued 5-1-48

Revised 5-1-68

### 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 gray, 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 Properties: The product shall conform to the following requirements; tests shall be performed on the product supplied and in accordance with the issue of specified ASTM methods listed in the latest issue of AMS 2350, insofar as practicable.

|         |                                                                |       |                                                                                       |
|---------|----------------------------------------------------------------|-------|---------------------------------------------------------------------------------------|
| Ø 4.2.1 | Flexural Strength, psi, min                                    | 8000  | ASTM D790                                                                             |
| 4.2.2   | Impact Strength (Notched Izod),<br>ft-lb per in. of Notch, min | 0.275 | ASTM D256, Method A                                                                   |
| 4.2.3   | Dielectric Strength, short time<br>test, v per mil, min        |       | ASTM D149; test specimen<br>to be molded disc 0.075<br>in. thick by 4 in. in diameter |
|         | 73 F $\pm$ 5 (22.8 C $\pm$ 2.8)                                | 400   |                                                                                       |
|         | 212 F $\pm$ 2 (100 C $\pm$ 1.1)                                | 350   |                                                                                       |
| 4.2.4   | Arc Resistance, sec, min                                       | 120   | ASTM D495                                                                             |
| 4.2.5   | Water Absorption in 24 hr,<br>%, max                           | 0.15  | ASTM D570                                                                             |
| 4.2.6   | Specific Gravity, 77 F/77 F<br>(25 C/25 C), max                | 2.20  | ASTM D792, Method A                                                                   |
| 4.2.7   | Shrinkage, in. per in., max                                    | 0.002 | Bake 0.075 x 4 in. diameter<br>disc for 8 hr at 220 F $\pm$ 2<br>(104.4 C $\pm$ 1.1)  |