AERONAUTICAL MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York 17, N.Y.

AMS 3735

Issued 1-15-58
Revised

POTTING COMPOUND, EPOXY, FILLED
10 - 15 CTE, 225 HDT

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.

2. TYPE: Highly filled epoxy formulation, consisting of two components, a filled epoxy resin and a hardener.

3. APPLICATION: Primarily for embedment and encasement of electronic component assemblies where low thermal expansion is required.

4. TECHNICAL REQUIREMENTS:

4.1 General:

4.1.1 Curing: When mixed and cured at a temperature not higher than 250 F in accordance with the manufacturer's recommendations, formulation shall polymarize to a uniform, rigid material.

4.1.2 Pot Life: Material in 100 g batches shall have a useful pot life of not less than 1 hr when maintained at 60 - 170 F.

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, when cured to obtain optimum properties, shall conform to the following requirements. Tests shall be performed on specimens cast, after mixing as recommended by the manufacturer, in suitable bar and slab molds, and, insofar as practicable, in accordance with listed ASTM methods.

4.2.1	Flexural Strength, psi, min	10,000	ASTM D790-49T
4.2.2	Impact Strength, Izod, ft-lb per in. of notch, min	0.34	ASTM D256-56, Method C
4.2.3	Heat Distortion Temperature (264 psi fiber stress), deg Fahr, min	225	ASTM D648-56
4.2.4	Insulation Resistance, megohms, min at 75 F at 250 F	 1.0×10^6 0.5×10^6	ASTM D257-54T
4.2.5	Dielectric Strength, v per mil, min	300	ASTM D149-55T
4.2.6	Coefficient of Thermal Expansion from 75 to 165 F, 10^{-6} in. per in. per deg Fahr	10 - 15	ASTM D696-44