



Engineering Material Specification

Material Name

Specification Number

**PHENOLIC, TRANSFER MOLDING COMPOUND
FAST MOLDING - MINERAL FILLED ASBESTOS REINFORCED**

F ESF-M3D113-A

1. SCOPE

The material defined by this specification is a two stage, transfer molding grade, mineral filled, phenolic molding compound with low moisture absorption, and good dimensional stability at elevated temperatures.

2. APPLICATION

This specification was released originally for material used in the molded commutator for starting motors.

3. REQUIREMENTS

3.1 PROPERTIES OF MOLDED MATERIAL

3.1.1	Conditioning	48 h at 50°C, test at 23°C ± 2°C
3.1.2	Color	The color shall be as specified on engineering drawing.
3.1.3	Specific Gravity (ASTM D 792)	1.67 - 1.71
3.1.4	Water Absorption, max (ASTM D 570)	0.2%
3.1.5	Impact Strength, min (ASTM D 256, notched)	0.58 ft lb/in (31 J/m)
3.1.6	Flexural Strength, min (ASTM D 790)	12 000 psi (83 MPa)
3.1.7	Tensile Strength, min (ASTM D 638)	6000 psi (41.4 MPa)
3.1.8	Compressive Strength, min (ASTM D 695)	20 000 psi (138 MPa)
3.1.9	Deflection Temperature, min (ASTM D 648, 264 psi (1820 kPa))	260°C

Date	Para. No.	Revisions
1978 03 09		Metricated and Retyped <i>CF4H-RD 567168.13</i>
1970 06 04		Released F6Z-289

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