



**Cosmic Plastics Inc**  
HELPING MOLD THE FUTURE



Registered To ISO 9001:2015  
Ref. No. 10000711

## TECHNICAL DATA SHEET

**FARBOSET® 1160**

**DESCRIPTION** Cosmic FARBOSET 1160 is a granular, mineral-filled, anhydride epoxy molding compound featuring fast cure rates, long flow and excellent thermal shock resistance.

**APPLICATIONS** It is designed for the encapsulation of coils, transformers, capacitors, diodes, relays, and other electrical and electronic components requiring good hot rigidity in molding.

### MATERIAL INFORMATION & PROPERTIES

MOLDING INFORMATION	SPECIFICATIONS	DATA
Bulk Density (powder)	gm/cc	0.95
Molding Pressure	kg/cm <sup>2</sup> psi	3.5 – 70 50 – 1,000
Molding Temperature	°C °F	150 – 180 302 – 356
Mold Shrinkage	cm/cm	0.006
Cure Time	Minutes @ 150 °C (302 °F)	1 - 3
Molded Density	gm/cc	1.97
Spiral Flow, (EMMI 1-66A)	cm (in)	89 (35)

ELECTRICAL PROPERTIES	SPECIFICATIONS	DATA
Arc Resistance	seconds	180
Dissipation Factor	1 KHz	0.004
Dielectric Constant	1 KHz	3.5
Dielectric Strength, (short time, 125 mils)	volts/mil	380
Loss Factor	1 KHz	0.014
Volume Resistivity	ohm-cm, x 10 <sup>15</sup>	9.5
Surface Resistivity	ohm-cm, x 10 <sup>16</sup>	>1.0

MOISTURE PROPERTIES	SPECIFICATIONS	DATA
Water Absorption, %	24 hrs @ 23 °C (73 °F)	0.026

MECHANICAL PROPERTIES	SPECIFICATIONS	DATA
Flexural Strength	psi kg/cm <sup>2</sup>	17,000 1,210
Flexural Modulus	psi, x 10 <sup>6</sup>	NA
Compressive Strength	psi kg/cm <sup>2</sup>	33,000 2,320
Tensile Strength	psi kg/cm <sup>2</sup>	11,000 770
Hardness	Shore D	80
Impact Strength, Izod notched	kg-m/cm ft-lb/inch	0.022 0.35

THERMAL PROPERTIES	SPECIFICATIONS	DATA
Glass Transition Temperature (Tg)	°C (°F)	130 (266)
Linear Thermal Expansion, Alpha 1	cm/cm/°C, x 10 <sup>-6</sup>	NA
Linear Thermal Expansion, Alpha 2	cm/cm/°C, x 10 <sup>-6</sup>	NA
Thermal Conductivity	cal/cm-sec-°C, x10 <sup>-4</sup>	24
Heat Distortion Temperature	°C (18.6 kg/cm <sup>2</sup> ) °F (264 psi)	100 212
Max Intermittent Operating Temp	°C (°F)	190 (374)
Hot Plate Cure Time	@ 150 °C (302 °F), seconds	40

CERTIFICATIONS	SPECIFICATION	DATA
Flammability	UL-94, 1/16 inch	HB

STORAGE INFORMATION	SPECIFICATIONS	DATA
Recommended Storage Temperature	°C (°F)	4 (40)
Storage Life	5 °C (40 °F), months	6
<i>(Not more than 40% loss of spiral flow based on original values.)</i>	25 °C (77 °F), weeks	1
	35 °C (95 °F), days	2

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Technical Data Sheets are offered for Reference Only, and are not to be considered as specifications. All tests were performed at room temperature (22 °C) unless otherwise stated, under carefully controlled conditions using transfer molded specimens. Since actual performance is determined by the molding techniques applied, as well as part size and shape, it is recommended that customers conduct their own tests to determine product suitability for their specific application. **Cosmic Plastics, Inc. makes no warranties of merchantability, or any expressed or implied guarantee or representation of fitness or suitability for any application.**