



**Cosmic Plastics Inc**  
HELPING MOLD THE FUTURE



Registered To ISO 9001:2008  
Ref. No. 10000711

## TECHNICAL DATA SHEET

**FARBOSET® 2270**

**DESCRIPTION** Cosmic FARBOSET 2270 is a granular, glass and mineral-filled, novolac epoxy molding compound featuring good moldability and fast cure rates at low molding temperatures.

**APPLICATIONS** It is designed for the encapsulation of capacitors, resistors, hybrids and other electrical and electronic components.

### MATERIAL INFORMATION & PROPERTIES

MOLDING INFORMATION	SPECIFICATIONS	DATA
Bulk Density (powder)	gm/cc	1.0
Molding Pressure	kg/cm <sup>2</sup> psi	14 – 70 200 – 1,000
Molding Temperature	°C °F	150 – 180 302 – 356
Post Cure	180 °C, hours	4-16
Cure Time	Minutes @ 150 °C (302 °F)	1 - 2
Molded Density	gm/cc	1.90
Spiral Flow, (EMMI 1-66A)	cm (in)	102 (40)

ELECTRICAL PROPERTIES	SPECIFICATIONS	DATA
Arc Resistance	seconds	180
Dissipation Factor	1 KHz	0.004
Dielectric Constant	1 KHz	4.0
Dielectric Strength, (short time, 125 mils)	volts/mil	>400
Loss Factor	1 KHz	0.016
Volume Resistivity	ohm-cm, x 10 <sup>15</sup>	2.0
Surface Resistivity	ohm-cm, x 10 <sup>16</sup>	1.0

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

THERMAL PROPERTIES	SPECIFICATIONS	DATA
Glass Transition Temperature (Tg)	°C (°F)	145 (293)
Linear Thermal Expansion, Alpha 1	cm/cm/°C, x 10 <sup>-6</sup>	35
Linear Thermal Expansion, Alpha 2	cm/cm/°C, x 10 <sup>-6</sup>	80
Thermal Conductivity	cal/cm-sec-°C, x10 <sup>-4</sup>	22
Heat Distortion Temperature	°C (18.6 kg/cm <sup>2</sup> ) °F (264 psi)	NA NA
Max Intermittent Operating Temp	°C (°F)	200 (392)
Hot Plate Cure Time	@ 150 °C (302 °F), seconds	39

MECHANICAL PROPERTIES	SPECIFICATIONS	DATA
Flexural Strength	psi kg/cm <sup>2</sup>	16,000 1,125
Flexural Modulus	psi, x 10 <sup>6</sup>	NA
Compressive Strength	psi kg/cm <sup>2</sup>	40,000 2,800
Tensile Strength	psi kg/cm <sup>2</sup>	10,000 700
Hardness	Shore D	90
Impact Strength, Izod notched	kg-m/cm ft-lb/inch	0.022 0.40

STORAGE INFORMATION	SPECIFICATIONS	DATA
Recommended Storage Temperature	°C (°F)	4 (40)
Storage Life	5 °C (40 °F), months	12
<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

CERTIFICATIONS	SPECIFICATION	DATA
Flammability	None	NA

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Approved: SC, 2/1/17

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.**