



Cosmic Plastics Inc
HELPING MOLD THE FUTURE



Registered To ISO 9001:2008
Ref. No. 10000711

TECHNICAL DATA SHEET

E484 Epoxy

DESCRIPTION	Cosmic E484 is a mineral filled, glass reinforced, electrical grade epoxy molding compound which is supplied in a granular form.
FEATURES	It has excellent mechanical strength and electrical properties, especially at high temperatures. It has passed NASA out-gassing tests.
APPLICATIONS	Used in electrical hardware applications such as underwater connectors and other insulation applications.

PROPERTIES	SPECIFICATIONS	DATA
MOLDING INFORMATION	Specific Gravity	1.95
	Bulk Factor	2 - 5
	Molding Temperature, °C	150 - 180
	Molding Pressure, psi	500 - 8,000
	Mold Shrinkage, in / in	.002 - .004
MECHANICAL PROPERTIES	Impact Strength (Izod), ft lb/in of notch	.60
	Flexural Strength, psi	19,000
	Flexural Modulus x 10 ⁶ , psi	2.8
	Compressive Strength, psi	30,000
	Tensile Strength, psi	14,000
THERMAL PROPERTIES	Heat Deflection Temperature, °C	260
	Glass Transition Temperature, °C	165
	Thermal Conductivity, cal/sec/cm ² /°C/cm	10 x 10 ⁻⁴
	Coefficient of Linear Expansion - Alpha 1 in/in °C	29.3 x 10 ⁻⁶
	Coefficient of Linear Expansion - Alpha 2 in/in °C	92.0 x 10 ⁻⁶
MOISTURE PROPERTIES	Water Absorption, % 48 hrs @ 50°C	0.25
ELECTRICAL PROPERTIES	Arc Resistance, secs	186
	Dielectric Strength, volts / mil Kv step by step	Wet 350
	Dielectric Breakdown, Kv step by step	Wet 60
	Dielectric Constant, 1KHz / 1MHz	Wet 5.4 / 4.7
	Dissipation Factor, 1 KHz / 1MHz	Wet .011 / .008
	Surface Resistance, ohm-cm	>1 x 10 ¹⁵
	Barcol Hardness	65-75
CERTIFICATION	MIL-M-14, ASTM D-5948-96	Type GEI-5
	Flammability Rating	UL-94 VO 1/16

All data is based on the best information possible and is obtained from specimens molded under carefully controlled conditions. Properties may be affected by the molding techniques applied and by the size and shape of the item molded. All information is presented without any guarantee, warranty or responsibility of any kind, expressed or implied, on Cosmic Plastics' part.