



Cosmic Plastics Inc
HELPING MOLD THE FUTURE



Registered To ISO 9001:2008
Ref. No. 10000711

TECHNICAL DATA SHEET

E4920 Epoxy

- DESCRIPTION** Cosmic E4920 is a mineral filled epoxy molding compound which is available either in a granular form, or preformed in a variety of sizes and weights.
- FEATURES** It has excellent moisture resistance, thermal cycling stability and outstanding moldability. Parts molded from this material do not support fungus growth. It is available in a wide flow range to suit custom molding requirements. E4920 can be supplied in black, gold, green or red. It has a shelf life of eight months when stored at 5°C.
- APPLICATIONS** It is designed for encapsulation of passive devices such as capacitors, inductors, diodes and rectifiers.

PROPERTIES	SPECIFICATIONS	DATA
MOLDING INFORMATION	Specific Gravity	1.85
	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	.50
	Flexural Strength, psi	15,000
	Flexural Modulus x 10 ⁶ , psi	2.0
	Compressive Strength, psi	35,000
	Tensile Strength, psi	12,000
	Barcol Hardness	65
THERMAL PROPERTIES	Heat Deflection Temperature, °C	260
	Glass Transition Temperature, °C	175
	Thermal Conductivity, cal/sec/cm ² /°C/cm	16 x 10 ⁻⁴
	Coefficient of Linear Expansion - Alpha 1 in/in °C	25 x 10 ⁻⁶
	Coefficient of Linear Expansion - Alpha 2 in/in °C	70 x 10 ⁻⁶
MOISTURE PROPERTIES	Water Absorption, % 48 hrs @ 50°C	0.25
ELECTRICAL PROPERTIES	Arc Resistance, secs	180
	Dielectric Strength, volts / mil Kv step by step	Wet 350
	Dielectric Breakdown, Kv step by step	Wet 56
	Dielectric Constant, 1KHz / 1MHz	Wet 3.9 / 4.3
	Dissipation Factor, 1 KHz / 1MHz	Wet .012 / .011
	Surface Resistance, ohm-cm	1 x 10 ¹⁵
	Volume Resistance, ohm-cm	1 x 10 ¹⁵
CERTIFICATION	MIL-M-14, ASTM D-5948-96	Type MEH, MEG, MEE, MEC
	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.