



**Cosmic Plastics Inc**  
HELPING MOLD THE FUTURE



Registered To ISO 9001:2008  
Ref. No. 10000711

## TECHNICAL DATA SHEET

**3D94 Alkyd**

**DESCRIPTION** Cosmic 3D94 is a mineral-filled, polyester molding compound which is supplied in a sheet form. It molds easily in standard compression or transfer equipment and has a shelf life of six months when stored at 5°C or below.

**FEATURES** 3D94 is available in green color and has a flow range of 17 to 35 inches.

**APPLICATIONS** Used in inductors, capacitors, resistors and resistor networks

### MATERIAL INFORMATION & PROPERTIES

MOLDING INFORMATION	SPECIFICATION	DATA
Specific Gravity		1.89
Bulk Factor		N/A
Molding Pressure	psi	250 – 8,000
Molding Temperature	°C	130 - 170
Mold Shrinkage	In / In	.001 - .008

MOISTURE PROPERTIES	SPECIFICATION	DATA
Water Absorption, %	48 hrs @ 50 °C	0.40

MECHANICAL PROPERTIES	SPECIFICATION	DATA
Impact Strength	Izod notched, ft-lb / inch	0.30 – 0.50
Flexural Strength	psi	8 – 14,000
Compressive Strength	psi	18 – 22,000
Tensile Strength	psi	3,500 – 7,000

ELECTRICAL PROPERTIES	SPECIFICATION	DATA
Arc Resistance	seconds	140
Dielectric Strength	volts/mil (Dry)	400
(Kv step-by-step)	volts/mil (Wet)	350
Dielectric Breakdown	Kv step-by-step (Dry)	55
	Kv step-by-step (Wet)	40
Dielectric Constant	1 KHz / 1 MHz (Dry)	5.5 / 5.6
	1 KHz / 1 MHz (Wet)	6.0 / 5.5
Dissipation Factor	1 KHz / 1 MHz (Dry)	.040 / .025
	1 KHz / 1 MHz (Wet)	.050 / .030

THERMAL PROPERTIES	SPECIFICATION	DATA
Heat Distortion Temp, (°C)	18.6 kg / cm <sup>2</sup>	205
Dimensional Stability	% Max.	0.04

**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.**

Approved: SC 1/1/17

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