Cosmic Plastics Inc
HELPING MOLD THE FUTURE

Registered To ISO 9001:2008
Ref. No. 10000711

TECHNICAL DATA SHEET

D33 / 6120 DAP

DESCRIPTION Cosmic D33 / 6120 is a short-glass fiber filled, general purpose diallyl ortho-phthalate molding compound which is supplied in a free flowing granular form. It can be easily molded in compression, transfer, or injection equipment and can be readily preformed

FEATURES D33 / 6120 has a low water absorption, high dielectric strength, and low dissipation factor along with a fast cure.

APPLICATIONS Switches, terminals, insulators, cups, cases and other applications requiring strength. Also useful for encapsulation of electrical and electronic components. Has easy flow and is useful for molding thin parts..

MATERIAL INFORMATION & PROPERTIES

MOLDING INFORMATION	SPECIFICATIONS	DATA
Specific Gravity		1.72
Bulk Factor		2.5
Molding Pressure	psi	500 – 8,000
Molding Temperature	°C	135 - 190
Mold Shrinkage	in / in	.001 - .004

MOISTURE PROPERTIES	SPECIFICATIONS	DATA
Water Absorption, %	48 hrs @ 50 °C	0.25

MECHANICAL PROPERTIES	SPECIFICATIONS	DATA
Impact Strength	Izod notched, ft-lb/inch	0.5 – 1.2
Flexural Strength	psi	13 – 15,000
Compressive Strength	psi	24 – 26,000
Tensile Strength	psi	6 – 10,000

THERMAL PROPERTIES	SPECIFICATIONS	DATA
Thermal Expansion, (-40 °C to 100 °C)	10^{-5} / °C	1.2
Heat Distortion Temp, (°C)	18.6 kg/cm^2	260
Dimensional Stability	% Max.	0.01

ELECTRICAL PROPERTIES	SPECIFICATION	DATA
Arc Resistance	seconds	145
Dielectric Strength, (Kv step-by-step)	volts/mil (Dry) volts/mil (Wet)	380 340
Dielectric Breakdown	Kv step-by-step (Dry) Kv step-by-step (Wet)	62 60
Dielectric Constant	1 KHz / 1 MHz (Dry) 1 KHz / 1 MHz (Wet)	4.2 / 4.0 4.3 / 4.2
Dissipation Factor	1 KHz / 1 MHz (Dry) 1 KHz / 1 MHz (Wet)	.007 / .013 .011 / .015
Volume Resistance, megaohms	As is 30 days @ 100% RH @70 °C	>10^{10} 10^4
Surface Resistance, megaohms	As is 30 days @ 100% RH @70 °C	>10^{10} 10^4

CERTIFICATIONS	SPECIFICATIONS	DATA
ASTM D-5948-05; (MIL-M-14)	Type	SDG
Flammability	None	N/A

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 1/25/17