



Cosmic Plastics Inc
HELPING MOLD THE FUTURE



Registered To ISO 9001:2008
Ref. No. 10000711

TECHNICAL DATA SHEET

D72 / 6120F DAP

DESCRIPTION	Cosmic D72 is a short-glass fiber filled, flame retardant, general purpose diiallyl 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. It has passed NASA outgassing tests.
FEATURES	D72 has a high dielectric strength, low dissipation factor along with excellent flexural and tensile strength.
APPLICATIONS	Switches, terminals, insulators, cups, cases and other applications requiring flame resistance and strength. Also useful for encapsulation of electrical and electronic components. Suitable for thin-walled parts.

MATERIAL INFORMATION & PROPERTIES

MOLDING INFORMATION	SPECIFICATION	DATA
Specific Gravity		1.82
Bulk Factor		2.5
Molding Pressure	psi	500 – 8,000
Molding Temperature	°C	135 - 190
Mold Shrinkage	in / in	.001 - .004

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

MECHANICAL PROPERTIES	SPECIFICATION	DATA
Impact Strength	Izod notched, ft-lb/inch	.50 – 1.2
Flexural Strength	psi	13 – 15,000
Compressive Strength	psi	24 – 26,000
Tensile Strength	psi	6 – 10,000

THERMAL PROPERTIES	SPECIFICATION	DATA
Thermal Expansion, (-40 °C to 100 °C)	10 ⁻⁵ / °C	1.6
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	SPECIFICATION	DATA
ASTM D-5948-05; (MIL-M-14)	Type	SDG-F
Flammability	UL-94, 1/8 inch	V-0

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.**

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