Cosmic Plastics Inc
HELPING MOLD THE FUTURE

Registered To ISO 9001:2008
Ref. No. 10000711

TECHNICAL DATA SHEET

K77 / 6220F DAIP

DESCRIPTION Cosmic K77 / 6220F is a short-glass fiber filled, flame retardant premium diallyl iso-phthalate molding compound which is supplied in a granular form. It pours easily, can be preformed, and molds easily in standard compression, transfer or injection equipment.

FEATURES K77 / 6220F has good impact strength, excellent electrical properties and very high heat service properties.

APPLICATIONS The high strength of this material makes it ideal for switches, terminals, housings, structural parts and insulators.

RECOMMENDED PROCESSING CONDITIONS

MOLDING INFORMATION	SPECIFICATION	DATA
Specific Gravity		1.78
Bulk Factor		2.5
Molding Pressure	psi	500 – 8,000
Molding Temperature	°C	135 - 170
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	0.5 – 1.25
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	1.5
Heat Distortion Temp, (°C)	18.6 kg/cm^2	260
Dimensional Stability	% Max.	0.01

ELECTRICAL PROPERTIES	SPECIFICATION	DATA
Arc Resistance	seconds	180
Dielectric Strength,	volts/mil (Dry)	400
(Kv step-by-step)	volts/mil (Wet)	400
Dielectric Breakdown	Kv step-by-step (Dry)	64
	Kv step-by-step (Wet)	60
Dielectric Constant	1 KHz / 1 MHz (Dry)	4.2 / 3.9
	1 KHz / 1 MHz (Wet)	4.3 / 4.2
Dissipation Factor	1 KHz / 1 MHz (Dry)	.007 / .014
	1 KHz / 1 MHz (Wet)	.010 / .015
Volume Resistance, megaohms	As is	>10^{10}
	30 days @ 100% RH @70 °C	10^4
Surface Resistance, megaohms	As is	>10^{10}
	30 days @ 100% RH @70 °C	10^4

CERTIFICATIONS	SPECIFICATION	DATA
ASTM D-5948-05; (MIL-M-14)	Type	SIG-F, SDG-F
Flammability	UL-94, 1/16 inch	V-0

Approved: SC, 2/23/17