



Cosmic Plastics Inc
HELPING MOLD THE FUTURE



Registered To ISO 9001:2008
Ref. No. 10000711

TECHNICAL DATA SHEET

224 DAP

DESCRIPTION Cosmic 224 is a Dacron-filled, general purpose diallyl ortho-phthalate molding compound which is supplied in a flake form. It molds easily in standard compression or transfer equipment.

FEATURES It has excellent electrical properties with an impact strength considerably higher than Orlon-filled material. A special process enables 224 to retain its excellent volume and surface resistance after prolonged exposure to elevated temperatures and 100% humidity.

APPLICATIONS The inherent strength of Dacron fibers makes this compound excellent for applications requiring high physical and/or electrical properties.

MATERIAL INFORMATION & PROPERTIES

MOLDING INFORMATION	SPECIFICATION	DATA
Specific Gravity		1.60
Bulk Factor		6.0
Molding Pressure	psi	500 – 8,000
Molding Temperature	°C	135 - 190
Mold Shrinkage	ln / ln	.007 - .009

MOISTURE PROPERTIES	SPECIFICATION	DATA
Water Absorption, %	48 hrs @ 50 °C	0.35

MECHANICAL PROPERTIES	SPECIFICATION	DATA
Impact Strength	Izod notched, ft-lb / inch	3.0
Flexural Strength	psi	10 – 12,000
Compressive Strength	psi	18 – 25,000
Tensile Strength	psi	3,600 – 5,000

THERMAL PROPERTIES	SPECIFICATION	DATA
Thermal Expansion, (-40 °C to 100 °C)	10 ⁻⁵ / °C	4.0
Heat Distortion Temp, (°C)	18.6 kg / cm ²	260
Dimensional Stability	% Max.	0.06

ELECTRICAL PROPERTIES	SPECIFICATION	DATA
Arc Resistance	seconds	125
Dielectric Strength (Kv step-by-step)	volts/mil (Dry)	360
	volts/mil (Wet)	350
Dielectric Breakdown	Kv step-by-step (Dry)	62
	Kv step-by-step (Wet)	58
Dielectric Constant	1 KHz / 1 MHz (Dry)	3.4 / 3.5
	1 KHz / 1 MHz (Wet)	3.5 / 3.6
Dissipation Factor	1 KHz / 1 MHz (Dry)	.005 / .010
	1 KHz / 1 MHz (Wet)	.006 / .012
Volume Resistance, megahoms	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	SDI-30
Flammability Rating	UL-94, 1/8 inch	HB

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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