



**Cosmic Plastics Inc**  
HELPING MOLD THE FUTURE



Registered To ISO 9001:2008  
Ref. No. 10000711

## TECHNICAL DATA SHEET

**306 DAP**

<b>DESCRIPTION</b>	Cosmic 306 is an Orlon-filled, general purpose diallyl ortho-phthalate molding compound which is supplied in a flake form.
<b>FEATURES</b>	It has excellent electrical properties and is unaffected by prolonged exposure to elevated temperature and 100% humidity. It is also resistant to solvents, acids, and alkalis.
<b>APPLICATIONS</b>	Switches, terminals, insulators, cups, cases or other applications requiring strength and chemical or moisture resistance. Also useful for encapsulation of electrical and electronic components.

### MATERIAL INFORMATION & PROPERTIES

MOLDING INFORMATION	SPECIFICATION	DATA
Specific Gravity		1.52
Bulk Factor		6.0
Molding Pressure	psi	500 – 8,000
Molding Temperature	°C	135 - 190
Mold Shrinkage	In / In	.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	0.60 - 3.0
Flexural Strength	psi	8 – 12,000
Compressive Strength	psi	18 – 30,000
Tensile Strength	psi	3,600 – 5,000

THERMAL PROPERTIES	SPECIFICATION	DATA
Thermal Expansion, (-40 °C to 100 °C)	10 <sup>-5</sup> / °C	4.2
Heat Distortion Temp, (°C)	18.6 kg / cm <sup>2</sup>	260
Dimensional Stability	% Max.	0.07

ELECTRICAL PROPERTIES	SPECIFICATION	DATA
Arc Resistance	seconds	125
Dielectric Strength (Kv step-by-step)	volts/mil (Dry) volts/mil (Wet)	360 340
Dielectric Breakdown	Kv step-by-step (Dry) Kv step-by-step (Wet)	62 50
Dielectric Constant	1 KHz / 1 MHz (Dry) 1 KHz / 1 MHz (Wet)	3.2 / 3.1 3.4 / 3.3
Dissipation Factor	1 KHz / 1 MHz (Dry) 1 KHz / 1 MHz (Wet)	.020 / .013 .022 / .015
Volume Resistance, megahoms	As is 30 days @ 100% RH @70 °C	>10 <sup>10</sup> 10 <sup>4</sup>
Surface Resistance, megaohms	As is 30 days @ 100% RH @70 °C	>10 <sup>10</sup> 10 <sup>4</sup>

CERTIFICATIONS	SPECIFICATION	DATA
ASTM D-5948-05, (MIL-M-14)	Type	SDI-5
Flammability Rating	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, 1/18/17

Copyright © 2017 Cosmic Plastics Inc. All Rights Reserved.

28410 Industry Dr.  
Valencia, CA 91355

(661) 257-3274, (800) 423-5613, FAX (661) 257-3345  
www.cosmicplastics.com

Eff: 1/19/17  
TD-306