



Cosmic Plastics Inc
HELPING MOLD THE FUTURE



Registered To ISO 9001:2008
Ref. No. 10000711

TECHNICAL DATA SHEET

ID-40 DAP

DESCRIPTION	Cosmic ID-40 is an Orlon-filled, general purpose diallyl ortho-phthalate molding compound which is supplied in a granular form. It molds easily in standard compression or transfer equipment.
FEATURES	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. It has good flexural, compressive and tensile strength, and excellent post-mold shrinkage when compared to other Orlon molding compounds.
APPLICATIONS	High resistance to impact and shock makes it an excellent material for terminal and printed circuit boards, connectors, or other applications requiring impact and/or shock tolerance.

MATERIAL INFORMATION & PROPERTIES

MOLDING INFORMATION	SPECIFICATION	DATA
Specific Gravity		1.52
Bulk Factor		3.0
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	.60 – .70
Flexural Strength	psi	8 – 12,500
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 ⁻⁵ / °C	4.2
Heat Distortion Temp, (°C)	18.6 kg/cm ²	260
Dimensional Stability	% Max.	0.07

ELECTRICAL PROPERTIES	SPECIFICATION	DATA
Arc Resistance	seconds	100
Dielectric Strength, (Kv step-by-step)	volts/mil (Dry)	360
	volts/mil (Wet)	340
Dielectric Breakdown	Kv step-by-step (Dry)	60
	Kv step-by-step (Wet)	45
Dielectric Constant	1 KHz / 1 MHz (Dry)	3.2 / 3.1
	1 KHz / 1 MHz (Wet)	3.4 / 3.3
Dissipation Factor	1 KHz / 1 MHz (Dry)	.020 / .013
	1 KHz / 1 MHz (Wet)	.020 / .018
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	SDI-5
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

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: 1/25/17
TD-ID40