

Cosmic DAP ID-40

Diallyl Phthalate
Cosmic Plastics, Inc.

Message:

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 alkalies. 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.

General Information		
Filler / Reinforcement	Orlon	
Features	Acid Resistant	
	Alkali Resistant	
	General Purpose	
	Good Compressive Strength	
	Good Electrical Properties	
	Good Moldability	
	High Impact Resistance	
	High Tensile Strength	
	Orthophthalic	
	Shock Resistant	
	Solvent Resistant	
Uses	Connectors	
	General Purpose	
	Printed Circuit Boards	
Agency Ratings	ASTM D 5948, Type SDI-5	
	MIL M-14, Type SDI-5	
Forms	Granules	
Processing Method	Compression Molding	
	Resin Transfer Molding	
Physical	Nominal Value	Unit
Specific Gravity	1.52	g/cm ³
Bulk Factor	3.0	

Molding Shrinkage - Flow	0.70 to 0.90	%
Dimensional Stability	< 0.070	%
Water Absorption ¹ (Equilibrium, 50°C)	0.35	%
Mechanical	Nominal Value	Unit
Tensile Strength	24.8 to 34.5	MPa
Flexural Strength	55.2 to 86.2	MPa
Compressive Strength	124 to 207	MPa
Impact	Nominal Value	Unit
Notched Izod Impact	32 to 37	J/m
Thermal	Nominal Value	Unit
CLTE - Flow (-40 to 100°C)	4.2E-5	cm/cm/°C
Heat Distortion	260	°C
Dielectric Breakdown		
Dry	60000	V
Wet	45000	V
Electrical	Nominal Value	Unit
Surface Resistivity		
-- ²	1.0E+10	ohms
-- ³	> 1.0E+16	ohms
Volume Resistivity		
-- ⁴	1.0E+10	ohms · cm
-- ⁵	> 1.0E+16	ohms · cm
Dielectric Strength ⁶		
Dry	14	kV/mm
Wet	13	kV/mm
Dielectric Constant		
1 kHz ⁷	3.40	
1 kHz ⁸	3.20	
1 MHz ⁹	3.30	
1 MHz ¹⁰	3.10	
Dissipation Factor		
1 kHz ¹¹	0.020	
1 MHz ¹²	0.018	
1 MHz ¹³	0.013	
Arc Resistance	100	sec
Injection	Nominal Value	Unit
Processing (Melt) Temp	135 to 190	°C
Injection Pressure	3.45 to 55.2	MPa
NOTE		
1.	48 hrs	
2.	30 days @ 100% RH @ 70°C	
3.	As Is	

4.	30 days @ 100% RH @ 70°C
5.	As Is
6.	Method B (Step-by-Step)
7.	Wet
8.	Dry
9.	Wet
10.	Dry
11.	Wet
12.	Wet
13.	Dry

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

