

Cosmic DAP 224

Diallyl Phthalate
Cosmic Plastics, Inc.

Message:

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 processing enables 224 to retain its excellent volume and surface resistance after prolonged exposure to elevated temperature and 100% humidity.

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

General Information	
UL YellowCard	E64213-247541
Filler / Reinforcement	Dacron
Features	General Purpose
	Good Electrical Properties
	Good Impact Resistance
	Good Strength
	Orthophthalic
Uses	General Purpose
Agency Ratings	ASTM D 5948, Type SDI-30
	MIL M-14, Type SDI-30
Forms	Flakes
Processing Method	Compression Molding
	Resin Transfer Molding

Physical	Nominal Value	Unit
Specific Gravity	1.60	g/cm ³
Bulk Factor	6.0	
Molding Shrinkage - Flow	0.70 to 0.90	%
Dimensional Stability	< 0.060	%
Water Absorption ¹ (Equilibrium, 50°C)	0.35	%
Mechanical	Nominal Value	Unit
Tensile Strength	24.1 to 35.9	MPa
Flexural Strength	68.9 to 82.7	MPa
Compressive Strength	124 to 172	MPa
Impact	Nominal Value	Unit
Notched Izod Impact	160	J/m

Thermal	Nominal Value	Unit	
CLTE - Flow (-40 to 100°C)	4.0E-5	cm/cm/°C	
Heat Distortion	260	°C	
Dielectric Breakdown			
Dry	62000	V	
Wet	58000	V	
Electrical	Nominal Value	Unit	Test Method
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	14	kV/mm	
Dielectric Constant			
1 kHz ⁷	3.50		
1 kHz ⁸	3.40		
1 MHz ⁹	3.60		
1 MHz ¹⁰	3.50		
Dissipation Factor			
1 kHz ¹¹	6.0E-3		
1 kHz ¹²	5.0E-3		
1 MHz ¹³	0.012		
1 MHz ¹⁴	0.010		
Arc Resistance	125	sec	
Flammability	Nominal Value	Unit	Test Method
Flame Rating (3.18 mm)	HB		UL 94
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.	Dry
13.	Wet
14.	Dry

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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

