

Cosmic DAP D33/6120

Diallyl Phthalate
Cosmic Plastics, Inc.

Message:

DESCRIPTION
Cosmic D33 / 6120 is a short glass fiber filled, general purpose diallyl ortho phthalate molding compound which is supplied in a free flowing granular form. It can be easily molded in compression, transfer, or injection equipment and can be readily preformed.

FEATURES
D33 / 6120 has a low water absorption, high dielectric strength, and low dissipation factor along with a fast cure.

APPLICATIONS
Switches, terminals, insulators, cups, cases and other applications requiring strength. Also useful for encapsulation of electrical and electronic components. Has easy flow and is useful for molding thin parts.

General Information	
Filler / Reinforcement	Glass Fiber
Features	Fast Cure
	General Purpose
	Good Flow
	Low to No Water Absorption
	Orthophthalic
Uses	Cups
	Electrical/Electronic Applications
	General Purpose
	Insulation
	Switches
Agency Ratings	ASTM D 5948, Type SDG
	MIL M-14, Type SDG
Forms	Granules
Processing Method	Compression Molding
	Encapsulating
	Injection Molding
	Resin Transfer Molding

Physical	Nominal Value	Unit
Specific Gravity	1.72	g/cm ³
Bulk Factor	2.5	
Molding Shrinkage - Flow	0.10 to 0.40	%
Dimensional Stability	< 0.010	%
Water Absorption ¹ (Equilibrium, 50°C)	0.25	%

Mechanical	Nominal Value	Unit
Tensile Strength	41.4 to 68.9	MPa
Flexural Strength	89.6 to 103	MPa
Compressive Strength	165 to 179	MPa
Impact	Nominal Value	Unit
Notched Izod Impact	27 to 64	J/m
Thermal	Nominal Value	Unit
CLTE - Flow (-40 to 100°C)	1.2E-5	cm/cm/°C
Heat Distortion	260	°C
Dielectric Breakdown		
Dry	62000	V
Wet	60000	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	15	kV/mm
Wet	13	kV/mm
Dielectric Constant		
1 kHz ⁷	4.30	
1 kHz ⁸	4.20	
1 MHz ⁹	4.20	
1 MHz ¹⁰	4.00	
Dissipation Factor		
1 kHz ¹¹	0.011	
1 kHz ¹²	7.0E-3	
1 MHz ¹³	0.015	
1 MHz ¹⁴	0.013	
Arc Resistance	145	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.	Dry
13.	Wet
14.	Dry

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