

Cosmic DAP K66/6230F

Diallyl Phthalate
Cosmic Plastics, Inc.

Message:

DESCRIPTION
Cosmic K66 / 6230F is a long glass fiber filled, flame retardant, general purpose diallyl iso-phthalate molding compound which is supplied in a flake form. It can be preformed and molds easily in standard compression or transfer equipment. It has passed NASA outgassing tests.

FEATURES
It has excellent mechanical and electrical properties with a high dielectric strength and low dielectric constant. It has superior heat resistance and excellent machining qualities.

APPLICATIONS
The high strength of this material makes it ideal for switches, terminals, housings, structural parts and insulators.

General Information		
Filler / Reinforcement	Long Glass Fiber	
Features	Flame Retardant	
	General Purpose	
	Good Electrical Properties	
	Good Moldability	
	High Heat Resistance	
	High Strength	
	Isophthalic	
	Machinable	
Uses	General Purpose	
	Housings	
	Insulation	
	Structural Parts	
	Switches	
Agency Ratings	ASTM D 5948, Type GII-30F	
	MIL M-14, Type GII-30F	
Forms	Flakes	
Processing Method	Compression Molding	
	Resin Transfer Molding	
Physical	Nominal Value	Unit
Specific Gravity	1.82	g/cm ³
Bulk Factor	6.0	
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 117	MPa	
Compressive Strength	165 to 207	MPa	
Impact	Nominal Value	Unit	
Notched Izod Impact	160 to 320	J/m	
Thermal	Nominal Value	Unit	
CLTE - Flow (-40 to 100°C)	2.4E-5	cm/cm/°C	
Heat Distortion	260	°C	
Dielectric Breakdown			
Dry	64000	V	
Wet	60000	V	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity			
-- ²	5.0E+10	ohms	
-- ³	> 1.0E+16	ohms	
Volume Resistivity			
-- ⁴	3.0E+10	ohms · cm	
-- ⁵	> 1.0E+16	ohms · cm	
Dielectric Strength ⁶			
Dry	19	kV/mm	
Wet	16	kV/mm	
Dielectric Constant			
1 kHz ⁷	4.10		
1 kHz ⁸	4.00		
1 MHz ⁹	3.90		
1 MHz ¹⁰	3.80		
Dissipation Factor			
1 kHz ¹¹	9.0E-3		
1 kHz ¹²	8.0E-3		
1 MHz ¹³	0.013		
1 MHz ¹⁴	0.012		
Arc Resistance	180	sec	
Flammability	Nominal Value	Unit	Test Method
Flame Rating (3.18 mm)	V-0		UL 94
Injection	Nominal Value	Unit	
Processing (Melt) Temp	135 to 170	°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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