# Cosmic Alkyd 3D36

## Alkyd

Cosmic Plastics, Inc.

## Message:

## DESCRIPTION

Cosmic 3D36 is a long glass fiber filled, impact resistant and flame retardant alkyd molding compound which is supplied in a flake form. It molds easily in standard compression or transfer equipment and has a shelf life of one year when stored at 10 0 C or below.

#### FFATI IRES

3D36 cures rapidly to give high strength parts with excellent surface, good electrical insulation and dimensional stability.

#### **APPLICATIONS**

Flexural Strength

Used in circuit breakers, relays, coil bobbins, terminal boards and connectors.

General Information		
Filler / Reinforcement	Long Glass Fiber	
Features	Fast Cure	
	Flame Retardant	
	Good Dimensional Stability	
	Good Electrical Properties	
	Good Impact Resistance	
	Good Moldability	
	High Strength	
	Outstanding Surface Finish	
Uses	Connectors	
	Electrical Parts	
Agency Ratings	ASTM D 5948, Type MAI-60	
	MIL M-14, Type MAI-60	
Forms	Flakes	
Processing Method	Compression Molding	
	Resin Transfer Molding	
Physical	Nominal Value	Unit
Specific Gravity	1.95	g/cm³
Bulk Factor	6.0 to 12	
Molding Shrinkage - Flow	0.10 to 0.40	%
Dimensional Stability	< 0.040	%
Water Absorption <sup>1</sup> (Equilibrium, 50°C)	0.25	%
Mechanical	Nominal Value	Unit
Tensile Strength	24.1 to 48.3	MPa

MPa

82.7 to 96.5

Compressive Strength	124 to 152	МРа	
Impact	Nominal Value	Unit	
Notched Izod Impact	160 to 320	J/m	
Thermal	Nominal Value	Unit	
Heat Distortion	205	°C	
Dielectric Breakdown			
Dry	55000	V	
Wet	40000	V	
Electrical	Nominal Value	Unit	
Dielectric Strength <sup>2</sup>			
Dry	16	kV/mm	
Wet	14	kV/mm	
Dielectric Constant			
1 kHz <sup>3</sup>	6.00		
1 kHz <sup>4</sup>	5.50		
1 MHz <sup>5</sup>	5.50		
1 MHz <sup>6</sup>	5.60		
Dissipation Factor			
1 kHz <sup>7</sup>	0.050		
1 kHz <sup>8</sup>	0.040		
1 MHz <sup>9</sup>	0.030		
1 MHz <sup>10</sup>	0.025		
Arc Resistance	140	sec	
Injection	Nominal Value	Unit	
Processing (Melt) Temp	130 to 170	°C	
Injection Pressure	3.45 to 55.2	MPa	
NOTE			
1.	48 hrs		
2.	Method B (Step-by-Step)		
3.	Wet		
4.	Dry		
5.	Wet		
6.	Dry		
7.	Wet		
8.	Dry		
9.	Wet		
10.	Dry		

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