



Cosmic Plastics Inc
HELPING MOLD THE FUTURE



Registered To ISO 9001:2008
Ref. No. 10000711

TECHNICAL DATA SHEET

3D36 Alkyd

- 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°C or below.
- FEATURES** 3D36 cures rapidly to give high strength to parts with excellent surface, good electrical insulation and dimensional stability.
- APPLICATIONS** Used in electrical hardware applications such as underwater connectors and other insulation applications.

MATERIAL INFORMATION & PROPERTIES

MOLDING INFORMATION	SPECIFICATION	DATA
Specific Gravity		1.95
Bulk Factor		6.0 – 12.0
Molding Pressure	psi	500 – 8,000
Molding Temperature	°C	130 - 170
Mold Shrinkage	In / In	.001 - .004

ELECTRICAL PROPERTIES	SPECIFICATION	DATA
Arc Resistance	seconds	140
Dielectric Strength (Kv step-by-step)	volts/mil (Dry) volts/mil (Wet)	400 350
Dielectric Breakdown	Kv step-by-step (Dry) Kv step-by-step (Wet)	55 40
Dielectric Constant	1 KHz / 1 MHz (Dry) 1 KHz / 1 MHz (Wet)	5.5 / 5.6 6.0 / 5.5
Dissipation Factor	1 KHz / 1 MHz (Dry) 1 KHz / 1 MHz (Wet)	.040 / .025 .050 / .030

MOISTURE PROPERTIES	SPECIFICATION	DATA
Water Absorption, %	48 hrs @ 50 °C	0.25

THERMAL PROPERTIES	SPECIFICATION	DATA
Heat Distortion Temp, (°C)	18.6 kg / cm ²	205
Dimensional Stability	% Max.	0.04

MECHANICAL PROPERTIES	SPECIFICATION	DATA
Impact Strength	Izod notched, ft-lb / inch	3.0 – 6.0
Flexural Strength	psi	12 – 14,000
Compressive Strength	psi	18 – 22,000
Tensile Strength	psi	3,500 – 7,000

CERTIFICATIONS	SPECIFICATION	DATA
ASTM D-5948-05, (MIL-M-14)	Type	MAI-60
Flammability Rating	UL-94, 1/8 inch	V-1

Technical Data Sheets are offered For Reference Only, and are not to be considered as specifications. All tests were performed at room temperature (22 °C) unless otherwise stated, under carefully controlled conditions using transfer molded specimens. Since actual performance is determined by the molding techniques applied, as well as part size and shape, it is recommended that customers conduct their own tests to determine product suitability for their specific application. **Cosmic Plastics, Inc. makes no warranties of merchantability, or any expressed or implied guarantee or representation of fitness or suitability for any application.**

Approved: SC 1/1/17

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