Plaskon SMT-B-1NLV

Epoxy; Epoxide

Cookson Electronics - Semiconductor Products

Message:

This material is an epoxy molding compound optimized specifically for PBGA applications with no plasma cleaning required before molding. It has the same unique resin system as the SMT-B-1, which minimizes warpage and enables trouble-free molding onto rigid and flexible laminate substrates. Minimal dimensional change after molding, post bake and subsequent solder treatment make this compound an excellent choice for PBGA and CSP applications.

General Information	
Features	Semi-conductive Good dimensional stability Low warpage Low viscosity Fast curing
Forms	Liquid
Processing Method	Resin transfer molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.88	g/cm³	ASTM D792

Mechanical	Nominal Value	Unit	Test Method
Flexural Modulus			ASTM D790
22°C	1.69	MPa	ASTM D790
215°C	1.01	MPa	ASTM D790
Flexural Strength			ASTM D790
22°C	0.0109	MPa	ASTM D790
215°C	0.00588	MPa	ASTM D790

Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	228	°C	ASTM E1356
CLTE - Flow	1.6E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.86	W/m/K	ASTM C177

Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	5.3E+16	ohms·cm	ASTM D257
Dielectric Constant (1 kHz)	3.70		ASTM D150
Dissipation Factor (1 kHz)	3.5E-3		ASTM D150

Flammability	Nominal Value	Unit	Test Method
Flame Rating (3.18 mm)	V-0		UL 94
Oxygen Index	32	%	ASTM D2863

Additional Information

Recommended Storage Temperature: <5°CLife @ 5°C, defined as not more than 40% loss of spiral flow based on original values.: 24 monthsLife @ 21°C, defined as not more than 40% loss of spiral flow based on original values.: 8 daysLife @ 35°C, defined as not more than 40% loss of spiral flow based on original values.: 3 daysSpiral Flow, 175°C, 1000 psi: 158 cmAutomatic Orifice Viscosity, 175°C: 44 poiseRam Follower Gel Time, 175°C, 1000 psi: 20 secAsh Content: 78 %Hydrolyzable Halides: <1 ppmCull Hot Hardness, Shore D: 72Volume Resistivity, 22°C: 5.3e16 ohm-cmAll test specimens are transfer molded and post cured for 4 hours at 175°C
Linear Thermal Expansion, Alpha 1: 16 cm^-6/cm/°C
Linear Thermal Expansion, Alpha 2: 59 cm^-6/cm/°C

Injection instructions

Resin Transfer Molding:
Molding Temperature: 175°C
Molding Pressure: 800 to 1200 psi
In Mold Cure Time: 70 to 150 sec
Post Mold Cure Time, 175°C: 4 to 12 hr