

# Plaskon SMT-B-1

Epoxy; Epoxide

Cookson Electronics - Semiconductor Products

## Message:

This material is an epoxy molding compound designed specifically for grid arrays (BGA/LGA). It is formulated with a unique resin system, 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 grid arrays.

General Information			
Features	Semi-conductive		
	Good dimensional stability		
	Low warpage		
	High temperature strength		
Forms	Liquid		
Processing Method	Resin transfer molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.86	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow	0.050	%	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Flexural Modulus			ASTM D790
22°C	1.38	MPa	ASTM D790
215°C	0.824	MPa	ASTM D790
Flexural Strength			ASTM D790
22°C	0.0103	MPa	ASTM D790
215°C	0.00363	MPa	ASTM D790
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	225	°C	ASTM E1356
CLTE - Flow	1.4E-5	cm/cm/°C	ASTM D696
Thermal Conductivity	0.70	W/m/K	ASTM C177
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+15	ohms · cm	ASTM D257
Dielectric Strength	16	kV/mm	ASTM D149
Dielectric Constant (1 kHz)	4.00		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Flame Rating (3.18 mm)	V-0		UL 94
Oxygen Index	34	%	ASTM D2863
Additional Information			

Recommended Storage Temperature: <5°C Life @ 5°C, defined as not more than 40% loss of spiral flow based on original values.: 24 months Life @ 21°C, defined as not more than 40% loss of spiral flow based on original values.: 8 days Life @ 35°C, defined as not more than 40% loss of spiral flow based on original values.: 3 days Spiral Flow, 175°C, 1000 psi: 77 cm Shimadzu Viscosity, 175°C, 1000 psi: 88 poise Ram Follower Gel Time, 175°C, 1000 psi: 19 sec Ash Content: 77.4 % Hydrolyzable Halides: <1 ppm Cull Hot Hardness, Shore D: 73 Volume Resistivity, 22°C: 1e15 ohm-cm Volume Resistivity, 150°C: 1e12 ohm-cm All test specimens are transfer molded and post cured for 4 hours at 175°C  
Linear Thermal Expansion, Alpha 1: 14 cm<sup>-6</sup>/cm/°C  
Linear Thermal Expansion, Alpha 2: 58 cm<sup>-6</sup>/cm/°C

#### Injection instructions

Resin Transfer Molding:

Molding Temperature: 170 to 185°C

Molding Pressure: 750 to 1250 psi

In Mold Cure Time: 120 to 180 sec

Post Mold Cure Time, 175°C: 4 to 6 hr

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#### Recommended distributors for this material

### Susheng Import & Export Trading Co., Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

