



HYSOL®EO1093

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PRODUCT DESCRIPTION

Hysol® EO1093 is a high performance, single component, semiconductor encapsulant for chip-on-board applications and a low-flow system for "glob-top" applications. This product features a six month shelf life at 4°C. Exceptional viscosity stability at 25°C provides easier control of shot size using conventional time/pressure dispensing equipment. EO1093 has been designed to pass 1,000 hours of temperature/humidity/bias testing and thermal cycling up to 125°C.

TYPICAL APPLICATIONS

Chip on board and glob-top applications.

PROPERTIES OF UNCURED MATERIAL

	Color
Filler Content, % (ASTM D2584)	60
Glob height	1.0
Shelf Life @ 4°C, months	6
	Typical Value
Viscosity @ 25°C, (77°F) (ITM2A)	
Brookfield RVF	
Spindle 6, Speed 2, Cp	55,000
Spindle 6, Speed 20, Cp	27,000

PHYSICAL PROPERTIES, CURED MATERIAL

Color	Black
Coefficient of Thermal Expansion, in/in/°C 120°C maximum, (ASTM D 3386)	40 x 10 ⁻⁶
Linear Shrinkage, % (ASTM D2566)	1.07
Glass Transition, (T _g), °C, (ASTM D3386)	125
Flex Strength, Psi (ASTM D790)	9,400
Hardness, Shore D, minimum (ASTM D 2240)	98
Specific Gravity, (ASTM D792)	1.78

Cured Electrical Properties

	25°C	
	K	D
1kHz	4.97	0.0083
10kHz	4.92	0.109
100kHz	4.83	0.132

Volume Resistivity	1.9 x 10 ¹⁴
Surface Resistivity	2.0 x 10 ¹⁴

K = Dielectric constant by ASTM D150
D = Dissipation Factor by ASTM D150

Vol. Res.= Volume Resistivity in ohm-cm by ASTM D257
Surf.Res.= Surface Resistivity in ohm by ASTM D257

Handling

Pot Life @ 25°C, 77°F, days,

(200 gram mass), (ITM10T)	25
Gel Time @ 121°C, (250°F), minutes, (ITM10N)	15

For best results, EO1093 should be dispensed onto a substrate warmed to approximately 90°C. This will help minimize air entrapment under bonding wire.

GENERAL INFORMATION

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or their strong oxidizing materials

Cure Schedule Black
Recommended Cure 4-6 hours @ 125°C
(Designed for robust packages which are not highly sensitive to stress.)

Alternate Cure 3 hours @ 140°C
(Designed for packages which are effected by high levels of stress.)

Use suggested cure schedules as general guidelines; other cure schedules may yield satisfactory results. Above cure conditions are suggested for maximum performance. Curing below 125°C is not recommended for most applications.

Note

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Loctite Electronics

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