Technical Data Sheet

HYSOL®OS2900

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PRODUCT DESCRIPTION

Hysol® OS2900 is a versatile, low viscosity casting system for discrete L.E.D. devices. L.E.D. lamps cast with OS2900 exhibit excellent T-cycle performance.

TYPICAL APPLICATIONS

Optoelectronic Liquid Encapsulant

PROPERTIES OF UNCURED MATERIAL

	OS2900 Part A	OS2900 Part B
Color	Clear Lt. Blue	Clear Lt. Yellow
Solids Content, % (ASTM D115)	100	100
Filler Content, %, (ASTM D2584)	0	0
Density @25°C, (77°F), (gm/cc) (ASTM D1475)	1.18	1.20
Shelf Life @ 25°C, (77°F), months	12	12
	Typical Value	
Viscosity @ 25°C, (77°F) ASTM D2393		
Brookfield RVF		
Spindle 4, Speed 20, cP	2,500	
Spindle 2, Speed 20, cP		250

PHYSICAL PROPERTIES, CURED MATERIAL

	OS2900
Color	Clear Water-White
Moisture Absorption, % (ASTM D570)	
8 Hrs @ 100°C	1.14
7 days @ 25°C	0.40
Glass Transition, Tg, °C,(ASTM D3386)	105-135
Coefficient of Thermal Expansion, in/in/°C (ASTM D3386)	
(30°-100°C)	57×10^{-6}
(150-200°C)	160×10^{-6}
Hardness, Shore D, (ASTM D2240)	96
Density, gm/cc,(ASTM D1475)	1.19
Linear Shrinkage, % (ASTM D2240)	96
Guide to operating class, IEEE °C, (°C)	105

Cured Electrical Properties

	25°C	
	K	**D**
1 kHz	2.84	0.0056
10 kHz	2.27	0.0133
100 kHz	2.65	0.0208

Volume Resistivity	3.31×10^{15}
Surface Resistivity	2.47×10^{15}

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

(Recommended mix ratio and typical mixed properties)

Mix Ratio, parts by weight*	100/100
Pot Life @ 25°C, 200 gram mass, hours	24
Viscosity @ 25°C, 77°F	
Spindle 2, Speed 20, cP	700
Gel Time @ 100°C, minutes	12

*Mix ratio of these materials is fixed by their chemistry. Any attempt to increase or decrease the cure rate by adding more or less hardener will result in degraded materials.

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

(Recommended for Optimum properties)

	Gel	Post Cure
Standard	30 min/125°C demold	4/125°C
Fast Cure	15 min/150°C demold	4/125°C
Low Stress	2 hrs/100°C demold	4/125°C

Typical cured properties were determined using the recommended cure schedule. Some differences in properties may occur with the alternate or other cure schedules.

Note

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Henkel Technologies

Loctite Electronics

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