

**HYSOL®OS1900**

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PRODUCT DESCRIPTION

Hysol® OS1900 is a clear water white epoxy casting compound developed specifically for discrete L.E.D. devices. This high strength system offers fast gelation for high production and excellent moisture resistance to high humidity environments.

TYPICAL APPLICATIONS

Optoelectronic Liquid Encapsulant

PROPERTIES OF UNCURED MATERIAL

	OS1900 Part A	OS1900 Part B
Color	Clear-Blue	
Color, maximum, (ASTM D1544)		Gardner 2
Specific Gravity @25°C, (77°F)	1.14-1.16	1.21-1.23
Gm/cc, ASTM D1475		
Shelf Life @ 25°C, (77°F), months	6	6
	Typical Value	
Viscosity @ 25°C, (77°F)		
ASTM D2393		
Brookfield RVF		
Spindle 4, Speed 20, cP	4,000-5,000	2,000-4,000

PHYSICAL PROPERTIES, CURED MATERIAL

	OS1900
Color	Water-white
Tensile Strength, psi, (ASTM D638)	10,000
Flexural Strength, psi, (ASTM D790)	20,000
Moisture Absorption, %, (ASTM D570)	
24 Hrs @ 25°C	0.08
7 days @ 25°C	0.25
24 hrs @ 100°C	1.3
7 days @ 100°C	1.8
Hardness, shore D, (ASTM D2240)	88
Glass Transition Temperature, °C, ASTM D1674	110
Coefficient of Thermal Expansion, In/in/°C, ASTM D1674	
1	48
2	175

Cured Electrical Properties

	@25°C	@60°C	@105°C
Dielectric Constant, DK			
ASTM D150			
1KHz	3.00	3.10	3.30
10KHz	3.00	3.10	3.20
100KHz	2.90	3.00	3.10
Dissipation Factor, DF			
ASTM D150			
1KHz	0.010	0.006	0.015
10KHz	0.015	0.010	0.010
100KHz	0.010	0.015	0.015

Volume Resistivity @ 25°C, ohm-cm, ASTM D257

500 volts, 60 second electrification	2.0 x 10 ¹⁵
Surface Resistivity @ 25°C, ohms, ASTM D257	
500 volts, 60 seconds electrification	1.0 x 10 ¹⁵

Handling

(Recommended mix ratio and typical mixed properties)

Mix Ratio, parts by weight*(Part A/Part B)	100/85
Mix Ratio, Tolerance, Part B	83-87
Mixed viscosity @ 25°C, (77°F)	
Spindle 3, Speed 2, cP	3,500
Gel Time @ 121°C, minutes	6-10

May crystallize during prolonged storage. This is normal. Remelt @ 60-70°C until clear. Avoid overheating. Allow to cool to room temperature before using.

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 Cure	4 hrs @ 120°C
	12 hrs @ 100°C

Some variations in listed values may occur; customer should determine whether cure other than recommended above will give satisfactory results.

Note

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**Loctite Electronics**

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