



U.S. Corporate Headquarters
400 Valley Road
Warrington, PA 18976
1(800) 523-2575 / (215) 343-6484
Fax: 1(800)343-3291
Email: info@polysciences.com
www.polysciences.com

Polysciences Europe GmbH
Handelsstrasse 3 D-69214
Eppelheim, Germany
+(49) 6221-765767
Fax: +(49) 6221-764620
Email: info@polysciences.de

TECHNICAL DATA SHEET 881

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OptiCLEAR™ Liquid Encapsulant Fill SF5021

DESCRIPTION

Polysciences, Inc. **OptiCLEAR™** liquid encapsulant is a new generation of low modulus fill material specifically designed to offer efficient light transmission and low cure stress. Polysciences' **OptiCLEAR™** encapsulant is a novel 100% solids, one component, unfilled, liquid encapsulant designed for encapsulation of semiconductor devices requiring high toughness and strong adhesion to various substrates such as metal, ceramic and organic.

DESCRIPTION

OptiCLEAR™ liquid encapsulant offers the following distinct advantages over anhydride-based epoxy systems:

CUSTOMER BENEFITS

- Rapid cure by UV light exposure
- Highly efficient transmission of incident light and very little change after exposure to high heat
- Enhanced stress management through the ability to achieve low modulus
- Efficient material utilization resulting from extended pot life at room temperature
- Contamination free processing due to very low cure volatiles

UNCURED (WET) PROPERTIES

Color	"Water" clear
Viscosity	@ 25°C 7,000 cps
Specific Gravity	~1.07
Storage Life	12 months @ 0°C

PROCESS PARAMETERS

Cure Cycle by heat 2 hours @ 120°C plus 2 hours @ 150°C
Temperature ramp rate should not exceed 10°C per minute

Cure Cycle by UV Exposure UV-A light @ 3-5 J/cm²

CURED PROPERTIES

Glass Transition Temperature (T _g) by DMA	0°C
Coefficient of Thermal Expansion (CTE)	200 ppm/°C
Moisture Absorption after 96 hrs 85°C/85% RH	0.9%
Thermal Stability (% weight loss)	0.8% @ 300°C
Extractable Ionic Content (Na, K, Cl)	< 20 ppm

STORAGE AND HANDLING

Shipment

Keep product at 0°C

Safety

Normal safety precautions for epoxy resins should be observed. Refer to MSDS for details.

TO ORDER

In The U.S. Call: 1(800) 523-2575 • (215) 343-6484

In The U.S. Fax: 1(800) 343-3291 • (215) 343-0214

In Germany Call: +(49) 6221-765767

In Germany Fax: +(49) 6221-764620

Order online anytime at www.polysciences.com