

LoSTRESS™ Liquid Encapsulant **SF501C**

Polysciences, Inc. optically clear **LoSTRESS™** Liquid Encapsulant is a new generation of low modulus, fill material specifically designed to offer low cure stress and low warpage. **LoSTRESS™** Liquid Encapsulant is a novel epoxy based 100% solids, one component, liquid encapsulant designed for encapsulation of semiconductor devices requiring low temperature cure and high reliability on various substrates such as metal, ceramic and organic.

Customer Benefits

LoSTRESS™ Liquid Encapsulant offers the following distinct advantages:

- Very little warpage on HTC and LTCC substrates for easy downstream process
- Minimal cure stress on sensitive devices such as thin ceramic SAW filters, allowing excellent thermal shock resistance
- High adhesion to die, substrates and most other interfacing materials

Uncured (Wet) Properties

Color

Transparent Green

Specific Gravity

1.07

Viscosity @ 25°C RVDV-II+, Spindle 27

TBD

Thixotropic Index (0.5/5 rpm)

TBD

Pot Life @ 25°C

>24 hours

Storage Life

>12 months @ -40°C

Process Parameters

Thawing

For best dispensing, thaw for 1 hour at room temperature

Recommended Cure

UV Fusion D bulb 10 J/cm² UV-A

Alternative Cure

UV Fusion D bulb 5 J/cm² UV-A
+2 hours @ 90C

Cured Properties

Glass Transition Temperature (Tg) by DMA
<20°C

Coefficient of Thermal Expansion (CTE)

Below Tg TBD

Above Tg TBD

Modulus (compression)

<1 MPa @ 25°C

Moisture Absorption after 192 hrs 30°C/60% RH

TBD

Decomposition Temperature (<2% weight loss)

270°C

Extractable Ionic Content (Na, K, Cl)

Na <5ppm

K <5ppm

Cl <10ppm

Storage and Handling

Shipment

Recommended temperature is -40°C

Storage

Store at -40°C for up to 1 year

Safety

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

All values are considered typical based on tests believed to be accurate. Polysciences, Inc. may change the data as appropriate.

Ordering Information

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 Europe Call: (49) 6221-756767

In Europe Fax: (49) 6221-764620