

LoSTRESS™ Liquid Encapsulant **SF5002**

Polysciences, Inc. **LoSTRESS™** Liquid Encapsulant is a new generation of low modulus, flame retardant 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 high toughness, flame retardancy and strong adhesion to 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 SAW filters
- High adhesion to die, substrates and most other interfacing materials

Uncured (Wet) Properties

Color

Black

Specific Gravity

1.14

Viscosity @ 25°C RVDV-II+, Spindle 27

11000 cps @ 5 rpm

Thixotropic Index (0.5/5 rpm)

1.6

Pot Life @ 25°C

>16 hours

Storage Life

>6 months @ -40°C

Process Parameters

Thawing

For best dispensing, thaw for 1 hour
at room temperature

Cure Cycle

90 min. @ 90°C

+ 60 min @ 150°C

+ 60 min @ 160°C

Cured Properties

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

Coefficient of Thermal Expansion (CTE)

Below T_g 149 ppm/ °C

Above T_g 240 ppm/ °C

Modulus (Tensile)

5 MPa @ 25°C

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

0.4%

Decomposition Temperature (<2% weight loss)

180°C

Extractable Ionic Content (Na, K, Cl)

Na <5ppm

K <5ppm

Cl <10ppm

Dielectric Constant

3±0.03 at 2GHz

Storage and Handling

Shipment

Recommended temperature is -40°C

Storage

Store at -40°C for up to 6 months

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