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LoSTRESS™ Liquid Encapsulant SF54GB

TECHNICAL DATA SHEET 651

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DESCRIPTION

Polysciences, Inc. *Lo*STRESS[™] Liquid Encapsulant is a new generation of low modulus, green flame retardant fill material specifically designed to offer low cure stress and low warpage. *Lo*STRESS[™] Liquid Encapsulant is a novel epoxy based 100% solids, one component, liquid encapsulant designed for encapsulation of semiconductor devices requiring improved aging resistance, high toughness, green 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
- Improved aging properties at elevated temperatures

UNCURED (WET) PROPERTIES

Color Black Specific Gravity 1.3

Viscosity @ 25°C RVDV-II+, Spindle 27)

30,000 cps @ 5 rpm

Thixotropic Index (5/0.5 rpm)

1.1

Pot Life @ 25°C >16 hours

Storage Life >12 months @ -40°C

PROCESS PARAMETERS

Thawing Cure Schedule For best dispensing, thaw for 1 hour at RT

90 minutes @ 100°C plus +60 minutes @ 150°C plus +60 minutes @ 160°C

CURED PROPERTIES

Glass Transition Temp. (Tg) by DMA

<20°C

Coefficient of Thermal Expansion (CTE)

Below Tg 130 ppm/°C Above Tg 250 ppm/°C

Modulus (Tensile) 1 MPa @ 25°C

Moisture Absorption after 192 hrs 30°C/60% RH 0.4%

Decomposition Temp. (<2%weight loss)

TBE

Extractable Ionic Content

Na <5ppm K <5ppm Cl <10pp

Dielectric Constant

TBD

STORAGE AND HANDLING

Shipping Recommended temperature is -40°C Storage Store at -40°C for up to 12 months

Safety Normal safety precautions for epoxy resins

should be observed. Refer to MSDS for details.

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

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