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LoSTRESS™ Liquid Encapsulant SF54GB

TECHNICAL DATA SHEET 651

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DESCRIPTION

Polysciences, Inc. LoSTRESS™ Liquid Encapsulant is a new generation of low modulus, green 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 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 For best dispensing, thaw for 1 hour at RT
Cure Schedule
90 minutes @ 100°C plus
+60 minutes @ 150°C plus
+60 minutes @ 160°C

CURED PROPERTIES

Glass Transition Temp. (T_g) by DMA
<20°C
Coefficient of Thermal Expansion (CTE)
Below T_g 130 ppm/°C
Above T_g 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)
TBD
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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