

Laboratory Data Sheet

ENCAPSULANT FOR LIQUID COMPRESSION MOLDING PROCESS

September 19

PRODUCT DESCRIPTION

EXP LCM 1000AF provides the following product characteristics:

Technology	Epoxy Amine System
Appearance	Black Liquid Paste
Cure	120C/300s In-mold cure
	PMC 1HR/150C
Product Benefits	High purity, Low stress, Liquid
	compression molding material
Application	Liquid Compression Molding
Typical Package	Wafer Level Packaging
Application	

TYPICAL EXP LCM 1000AF: Used in liquid compression molding and with low stress, exhibiting ultra-low-warpage during wafer-level process, and showing excellent chemical resistance and thermal stability properties.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Property	Method	Typical Value
Viscosity,	5rpm	700 Pa.s
Specific gravity Shelf life @ Filler Loading	25°C -40°C	1.92 EST 12 months 84%

TYPICAL CURING PERFORMANCE

Cure Schedule	UV or visible light		
In Mold	120C/300s		
Post Mold	150C/1hr		

The above cure profiles are guideline recommendations. Cure conditions (time and temperature) may vary based on customers' experience and their application requirements as well as customer curing equipment, oven loading and actual oven temperatures.

TYPICAL PROPERTIES OF CURED MATERIAL

Physical	Properties
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Property	Method	Typical Value
Glass transition	TMA	158
Temperature (Tg)		
Below Tg, ppm/°C	TMA	6
Above Tg, ppm/°C	TMA	17
Storage Modulus at	DMA	16
25°C, GPa		

Performance Propertie	es .	^	
Property	Method		Typical Value

GENERAL INFORMATION

For safe handling information on this product, consult the Material Safety Data Sheet.

THAWING (if applicable)

- 1. Allow container to reach room temperature before use.
- 2. After removing from freezer, set the syringes to stand vertically while thawing
- 3. Do not open the container before contents reach 22°C temperature. Any moisture that collects on the thawed container should be removed prior to opening the container.

Take about 3hr.

4. Do not re-freeze. Once thawed to 22°C, the adhesive should not be re-frozen.

DIRECTIONS FOR USE

Use in customer specific compression molding process

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage: -40°C. Storage below minus 40 °C or greater than -40 °C can adversely affect product properties. Material removed from containers may be contaminated during use. Do not return products to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

NOTE

This product is a developmental product. It is not now, and may not be in the future, commercially available. The properties of the uncured material and the physical



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