



ECCOBOND S-3869

August 2010

PRODUCT DESCRIPTION

ECCOBOND S-3869 provides the following product characteristics:

Technology	Silicone epoxy resin
Appearance	White
Cure	Heat cure
Product Benefits	• One component • No bleed • No delamination after heat shock • No yellowing • Non-conductive
Application	Die attach
Typical Package Application	GaN LED's

ECCOBOND S-3869 is a thermosetting, dielectric adhesive developed for GaN chip bonding for high-brightness LEDs. It features strong heat / UV resistance and can be applied by pin transfer, stamping and dispensing.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Cone & Plate, @ 25 °C mPa·s (cP):

Speed 10 rpm 4,200

Specific Gravity @ 25°C 1.28

Pot Life @ 25°C, hours 8

Shelf Life @ -40°C, months 3

Flash Point - See MSDS

TYPICAL CURING PERFORMANCE

Cure Schedule

2 hours @ 160°C

Shrinkage on Cure

Cure Shrinkage, % 2.1

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:

Glass Transition Temperature, °C	39
Hardness, Shore D	83
Specific Gravity @ 25 °C	1.308
Reflectance @ 465 nm, %	96

TYPICAL PERFORMANCE OF CURED MATERIAL

Die Shear Strength:

@ 25°C, N	78
@ 150°C, N	28

GENERAL INFORMATION

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

THAWING:

1. Allow container to reach room temperature before use.
2. After removing from the freezer, set the syringes to stand vertically while thawing.
3. DO NOT re-freeze. Once thawed, the adhesive should not be re-frozen.

Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.

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

Material removed from containers may be contaminated during use. Do not return product 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.

Conversions

(°C x 1.8) + 32 = °F

kV/mm x 25.4 = V/mil

mm / 25.4 = inches

N x 0.225 = lb

N/mm x 5.71 = lb/in

N/mm² x 145 = psi

MPa x 145 = psi

N·m x 8.851 = lb·in

N·m x 0.738 = lb·ft

N·mm x 0.142 = oz·in

mPa·s = cP

Note

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Reference 0.3