

LOCTITE ECCOBOND DP 1004

September 2012

PRODUCT DESCRIPTION

LOCTITE ECCOBOND DP 1004 provides the following product characteristics:

Technology	Epoxy
Appearance	blue
Product Benefits	• Fast cure • Low temperature cure • Sag resistant • One component • Good chemical resistance • Humidity resistant
Cure	Heat Cure
Application	Encapsulant
Key Substrates	Polyimide, Polyphenylene oxide, Copper and Gold
Typical Applications	ink jet applications, encapsulate electrical connections and structural die attach

LOCTITE ECCOBOND DP 1004 is designed for bonding dissimilar substrates commonly used in ink jet applications and other MEMS devices.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield CP52, 25 °C, mPa·s (cP):

Speed 5 rpm 102,000

Viscosity by Rheometer:

@ 1sec⁻¹, mPa·s (cP) 252,000

@ 2.55sec⁻¹, mPa·s (cP)

Thixotropic Index 2.5

Specific Gravity 1.3

Shelf Life @ -20°C, days 56

Flash Point - See SDS

TYPICAL CURING PERFORMANCE

Recommended Cure Schedule

20 minutes @ 110°C

10 minutes @ 100°C

5 minutes @ 120°C

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, DMA, °C 50

Tensile Modulus, DMTA :

@ 25 °C

N/mm² 2,400
(psi) (348,090)

GENERAL INFORMATION

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

THAWING:

1. Allow material to reach room temperature before use.

DIRECTIONS FOR USE

1. Complete cleaning of the substrates should be performed to remove contamination such as oxide layers, dust, moisture, salt and oils which can cause poor adhesion or corrosion in a bonded part.
2. Some filler settling is common during shipping and storage. For this reason, it is recommended that the contents of the shipping container be thoroughly mixed prior to use. Power mixing is preferred to ensure a homogeneous product.

Storage

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

Optimal Storage : -20 °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.

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.

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

psi x 145 = N/mm²

MPa = N/mm²

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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