



ECCOBOND 144A

October 2011

PRODUCT DESCRIPTION

ECCOBOND 144A provides the following product characteristics:

Technology	Epoxy
Appearance	Black
Cure	Heat cure
Product Benefits	• One component • Rapid cure at elevated temperatures • High operating temperature • Solvent-free
Application	Assembly
Operating Temperature	-62 to 200 °C

ECCOBOND 144A liquid epoxy is suitable for use on a wide variety of substrates. This material does not contain any solvents and eliminates the need for additional catalysts.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity @ 25 °C, mPa·s (cP):

Spindle 7, speed 20 rpm 93,000

Density, g/cm³ 1.55

Shelf Life:

@ 0 to 8°C, months 6

@ 18 to 25°C, months 3

Flash Point - See MSDS

TYPICAL CURING PERFORMANCE

Gel Time

10 minutes @ 120°C or

2 minutes @ 150°C or

30 seconds @ 180°C

Cure Schedule

4 hours @ 80°C or

1 hour @ 120°C or

30 minutes @ 150°C or

8 minutes @ 180°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:

Hardness, Shore D 90

Coefficient of Linear Thermal Expansion, 10⁻⁶ K⁻¹ 48

Glass Transition Temperature, °C 107

Thermal Conductivity, W/mk 0.63

Stroke Cure @ 160°C, seconds 60

Water Absorption, after 24 hours @ RT, % 0.07

Electrical Properties:

Volume Resistivity @ 25°C, ohm-cm 1×10¹⁴

TYPICAL PERFORMANCE OF CURED MATERIAL

Tensile Lap Shear Strength :

@ 25°C N/mm² 15
(psi) (2,175)

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. Carefully clean and dry all surfaces to be bonded.
2. Apply adhesive to surface to be bonded.
3. Cure at recommended cure schedules.

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: 0 to 8°C or 18 to 25°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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