Hysol

ECCOBOND A316-48

August 2011

PRODUCT DESCRIPTION

ECCOBOND A316-48 provides the following product characteristics:

Technology	Epoxy
Appearance	Black
Product Benefits	• One component • Fast heat cure • Heat resistant • Non-conductive • Exceptional thermal stability • Excellent chemical resistance
Cure	Heat cure
Filler Type	Oxide
Application	Heat resistant adhesive
Typical Package Application	Sensors and Control modules
Surfaces	Plastics, Phenolics, Metals and Ceramics
Operating Temperature	-40 to 180 °C

ECCOBOND A316-48 is an oxide filled, pourable epoxy adhesive designed for use in harsh automotive applications.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield , mPa·s (cP)	50,000
Specific Gravity	1.4
Shelf Life @ 25°C, months	3
Flash Point - See MSDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

30 minutes @ 100°C or
5 minutes @ 120°C or
3 minutes @ 140°C or
1 minutes @ 160°C

Post Cure

2 to 4 hours at the highest expected use temperature

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:

Coefficient of Thermal Expansion ISO 11359-2:	
Below Tg, ppm/°C	55
Above Tg, ppm/°C	155
Glass Transition Temperature, ISO 11357-2, °C	145
Thermal Conductivity, W/mk	0.4
Hardness Shore D:	
@ 25ºC	86
@ 130ºC	40

Electrical Properties:

Volume Resistivity, ohms-cm:	
@ 25ºC	1×10^{15}
@ 130ºC	3×10^{13}
Dielectric Constant IEC 60250:	
1kHz	3.75

TYPICAL PERFORMANCE OF CURED MATERIAL

Tensile Strength :

Aluminum @ 25ºC	N/mm²	17.3
	(psi)	(2,500)

GENERAL INFORMATION

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

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. Apply adhesive to all surfaces to be bonded and join together
3. In most applications only contact pressure is required

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: 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

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Note
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Americas
+1.888.943.6535

Europe
+44.1442.278.000

Asia
+86.21.3898.4800

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