



ECCOBOND 83C Catalyst 9

October 2011

PRODUCT DESCRIPTION

ECCOBOND 83C Catalyst 9 provides the following product characteristics:

Technology	Epoxy
Appearance	Silver
Components	Two component - requires mixing
Mix Ratio, by weight - Material: Catalyst	100 : 3.5
Product Benefits	<ul style="list-style-type: none"> • Good bond strength • Ease of use • Excellent electrical and thermal conductivity • Good chemical resistance • Good physical strength
Cure	Heat cure and Room temperature cure
Application	Assembly
Key Substrates	Metals, Glass, Ceramic and Plastics
Operating Temperature	-40 to 130°C

ECCOBOND 83C Catalyst 9 adhesive is designed to make electrical connections where hot soldering is impractical or to make electrical connections to conductive plastics at locations which cannot be subjected to high temperatures.

ECCOBOND 83C can be used with a variety of catalysts. For more information on mixed properties when used with other available catalysts, please contact your local technical service representative for assistance and recommendations.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties 83C:

Density, g/cm ³	3
Storage Life @ 25°C (from date of manufacture), months	6
Flash Point - See MSDS	

Part B Properties Catalyst 9:

Viscosity, mPa·s (cP)	92.5
Flash Point - See MSDS	

Mixed Properties:

Density, g/cm ³	2.81
Working Time, 100 g mass @ 25 °C, minutes	45
Flash Point - See MSDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

60 minutes @ 65°C
30 minutes @ 100°C

For optimum performance, follow the initial cure with a post cure of 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 TMA, 10 ⁻⁶ /°C	45
Thermal Conductivity, W/mK	2.6

Electrical Properties:

Volume Resistivity @ 25°C, ohm-cm	0.0004
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Outgassing Properties:

Outgassing, per NASA Reference Publication 1124, %: sample cured 1 hours @ 66°C	
TML	0.64
CVCM	0.02

TYPICAL PERFORMANCE OF CURED MATERIAL

Miscellaneous:

Tensile Lap Shear Strength @ 25°C:	
Aluminum to Aluminum	N/mm ² 6.8 (psi) (1,000)

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. Some separation of components 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.
3. Accurately weigh resin and hardener into a clean container in the recommended ratio. Weighing apparatus having an accuracy in proportion to the amounts being weighed should be used.
4. Blend components by hand, using a kneading motion, for 2 to 3 minutes and scrape the bottom and sides of the mixing container frequently to produce a uniform mixture.
5. Apply adhesive to all surfaces to be bonded and join together.
6. 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 in original, tightly covered containers in clean, dry areas. Storage information may be indicated on the product container labeling.

Optimal Storage: 25°C. Storage below 25°C or greater than 25°C can adversely affect product properties.

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

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$
 $\text{N/mm}^2 \times 145 = \text{psi}$
 $\text{MPa} \times 145 = \text{psi}$
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$
 $\text{mPa}\cdot\text{s} = \text{cP}$

Note

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation and its affiliates ("Henkel") specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel products. Henkel specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

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Reference 0.0