

# ECCOBOND CB011-1R

April 2012

**PRODUCT DESCRIPTION**

ECCOBOND CB011-1R provides the following product characteristics:

|                              |  |
|------------------------------|--|
| <b>Technology</b>            | Epoxy  |
| <b>Appearance</b>            | Black liquid   |
| <b>Filler content, %</b>     | 76   |
| <b>Product Benefits</b>      | <ul style="list-style-type: none"><li>• High purity</li><li>• Low stress</li><li>• High thermal conductivity capability</li><li>• Minimal slumping</li></ul> |
| <b>Cure</b>                  | Heat cure  |
| <b>Operating Temperature</b> | -65 to 140°C   |
| <b>Application</b>           | Encapsulant - dam  |

ECCOBOND CB011-1R epoxy damming material is designed to be dispensed as a flow control barrier around areas of bare chip encapsulation and can be co-cured after encapsulation.

**TYPICAL PROPERTIES OF UNCURED MATERIAL**

|   |         |
|---|---------|
| Viscosity, Brookfield - HBT, 25 °C, mPa·s (cP): |         |
| Spindle 14, speed 50 rpm                        | 110,000 |
| Thixotropic Index                               | 2.5     |
| Specific Gravity                                | 1.8     |
| Glob Height, mm                                 | 4       |
| Gel Time @ 121°C, minutes                       | 9       |
| Pot Life @ 25°C, days                           | 2       |
| Shelf Life @ -40°C, months                      | 6       |
| Flash Point - See SDS                           |         |

**TYPICAL CURING PERFORMANCE****Cure Schedule****(Co-cure with Encapsulant)**

2 hours @ 110°C plus 2 hours @ 160°C

**(Co-cure with Filled version)**

2 hours @ 150°C

The above cure profile is a guideline recommendation. 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, ppm/°C: |     |
| Below Tg                                  | 17  |
| Above Tg                                  | 69  |
| Glass Transition Temperature (Tg), °C     | 142 |

**GENERAL INFORMATION**

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

**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.

**THAWING:**

1. Allow container to reach room temperature before use.
2. Store tip down and warm at room temperature until no longer cool to the touch (normally 20 to 60 minutes).
3. **NOTE:** Elevated temperatures reduce working life.

**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. Storage below -40°C or greater than -40°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**

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

## Disclaimer

### Note:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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Reference 1