



CB0260

December 2012

PRODUCT DESCRIPTION

CB0260 provides the following product characteristics:

Technology	Epoxy
Appearance	Black
Product Benefits	• High purity • Excellent flow properties • Green product • High performance
Filler Weight, %	74
Components	One-component
Cure	Heat cure
Application	Encapsulant
Typical Applications	Bare chip protection, Variety of advanced packages, Ball Grid Arrays (BGA's), Chip Scale Packages, Plastic Ball Grid Arrays or, Full arrays on Low temperature co-fired Ceramic (LTCC)
Operating Temperature	-65 to 150°C

CB0260 features excellent flow properties allowing it to penetrate fine pitch wires and deep cavities without entrapping voids. This product can withstand solder reflow after being exposed to JEDEC level 2 (85 °C/60% RH, 168 hours) preconditioning. A cavity or potting dam is required for flow control.

TYPICAL PROPERTIES OF UNCURED MATERIAL

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

Spindle 14, speed 50 rpm, 34,000

Specific Gravity 1.8

Pot Life @ 25 °C (time to double viscosity), hours 24

Gel Time @ 121°C, minutes 11

Shelf Life:

@ -40°C, months 6

Flash Point - See SDS

TYPICAL CURING PERFORMANCE

Recommended Cure Schedule

30 minutes @ 125°C plus

90 minutes @ 165°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 T_g (40 to 120°C) 17

Above T_g (190 to 220°C) 67

Glass Transition Temperature (T_g), °C 149

Extractable Ionic Content, @ 121°C ppm:

Chloride (Cl-) 2

Potassium (K+) 1

Sodium (Na+) 2

Flexural Modulus, ASTM D790:

@ 25°C N/mm² 137
(psi) (19,865)

@ 240°C N/mm² 17
(psi) (2,465)

Flexural strength, ASTM D790:

@ 25°C N/mm² 12,700
(psi) (1,841,500)

@ 240°C N/mm² 600
(psi) (87,000)

Electrical Properties

Dielectric Constant / Dissipation Factor @ 25°C, IEC 60093:

@ 1 KHz 3.5/0.01

Volume Resistivity, IEC 60093, Ω·cm 5×10¹⁶

TYPICAL PERFORMANCE OF CURED MATERIAL

Tensile Shear Strength N/mm² 10
(psi) (1,450)

GENERAL INFORMATION

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

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

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. Frozen packages must be completely thawed before use.
2. Store tip down and warm at room temperature until no longer cool to the touch (normally 60 to 90 minutes).
3. DO NOT thaw in an oven.



Directions for use

1. CB0260 should be dispensed onto a substrate warmed to approximately 75°C. This will help minimize air entrapment.
2. Once dispensed, material should be cured within 30 minutes to prevent moisture contamination.
3. The cured properties of moisture contaminated material will be poorer than those described.

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

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

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

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 0.1