

LOCTITE ABLESTIK ABP 8520E2

October 2016

PRODUCT DESCRIPTION

LOCTITE ABLESTIK ABP 8520E2 provides the following product characteristics:

Technology	Silicone
Appearance	Silver gray liquid
Product Benefits	<ul style="list-style-type: none"> • Low modulus • Low weight loss
Cure	Heat cure
Application	Die attach

LOCTITE ABLESTIK ABP 8520E2 silver filled, conductive die attach adhesive is specifically designed for use in crystal oscillator manufacturing applications.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Thixotropic Index (0.5/5 rpm)	4.0
Viscosity, Brookfield CP51, 25 °C, mPa·s (cP):	
Speed 5 rpm	10,000
Work Life @ 25 °C, Viscosity increase by 25%, hours	18
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE
Cure Schedule

30 minute ramp to 205°C; hold 60 minutes @ 205°C plus
 15 minute ramp to 250°C; hold 30 minutes in air atmosphere

Weight Loss on Cure

Weight Loss on Cure, % -2.5

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

Dynamic Tensile Modulus, DMA:

@ -65°C	N/mm ²	240
	(psi)	(34,809)
@ 25°C	N/mm ²	39
	(psi)	(5,656)
@ 150°C	N/mm ²	20
	(psi)	(2,900)
@ 250°C	N/mm ²	20
	(psi)	(2,900)

Weight Loss @ 350°C, % 0.1

Electrical Properties

Bond Joint Resistance (Bulk), ohms 0.001

TYPICAL PERFORMANCE OF CURED MATERIAL
Shear Strength

Die Shear Strength:

2 x 2 mm Silver coating die on Au FR4, 0 hours open time:	
@ 25°C, Kg	2.5
@ 260°C, Kg	2.0

GENERAL INFORMATION

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

THAWING:

1. Allow container to reach room temperature before use.
2. DO NOT open the container before contents reach 25°C temperature. Any moisture that collects on the thawed container should be removed prior to opening the container.

DIRECTIONS FOR USE

1. Thawed material should immediately be placed on dispense equipment for use.
2. If the adhesive is transferred to a final dispensing reservoir, care must be exercised to avoid entrapment of contaminants and/or air into the adhesive.
3. Adhesive must be completely used within the product's recommended work life.

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 : -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

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

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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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