

LOCTITE ABLESTIK E3820J

September 2014

PRODUCT DESCRIPTION

LOCTITE ABLESTIK E3820J provides the following product characteristics:

Technology	Epoxy
Appearance	Black liquid
Product Benefits	<ul style="list-style-type: none"> • One component • Solvent-free • Fast cure at low temperature • Chemical, heat and moisture resistant • Good adhesion to plastics and metals • Controlled rheology
Cure	Oven Cure
Application	Assembly
Typical Assembly Applications	Relay switches and other devices

LOCTITE ABLESTIK E3820J epoxy adhesive and sealant is designed for high throughput assembly operations.

LOCTITE ABLESTIK E3820J is the refined version of LOCTITE ABLESTIK A 316-38 epoxy adhesive

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity , Cone and Plate, mPa·s (cP):	
Speed 5 rpm, Angle 3°	17,000
Sag Resistance @ 120 °C, Angle 45°, 100 mg, mm	30
Specific Gravity @ 25°C	1.29
Shelf Life @ 5 to 15°C (from date of manufacture), days	90

TYPICAL CURING PERFORMANCE

Gel Time

56 seconds @ 160°C

Cure Schedule

30 minutes @ 120°C

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

Hardness Shore D:	
@ 25°C	91
@ 120 °C	86
Glass Transition Temperature (Tg) by TMA, °C	133
Coefficient of Thermal Expansion , TMA:	
Below Tg, ppm/°C	58
Above Tg, ppm/°C	173
Water Absorption @ 100 °C, 1 hour, %	0.3

Electrical Properties

Volume resistivity @ 25°C, 500 V, Ω-cm	7×10 ¹⁴
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TYPICAL PERFORMANCE OF CURED MATERIAL

Shear Strength

Tensile Lap Shear Strength @ 25 °C:	
Al to Al	N/mm ² 14 (psi) (2,030)

GENERAL INFORMATION

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

THAWING:

1. Allow container to reach room temperature before use.
2. After removing from the freezer, set the syringes to stand vertically while thawing.
3. 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.
4. DO NOT re-freeze. Once thawed to 25°C, the adhesive should not be re-frozen.

DIRECTIONS FOR USE

1. Thawed adhesive 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 : 5 to 15 °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

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$
 $\text{kV/mm} \times 25.4 = \text{V/mil}$
 $\text{mm} / 25.4 = \text{inches}$
 $\text{N} \times 0.225 = \text{lb}$
 $\text{N/mm} \times 5.71 = \text{lb/in}$

$N/mm^2 \times 145 = \text{psi}$
 $MPa = N/mm^2$
 $MPa \times 145 = \text{psi}$
 $N \cdot m \times 8.851 = \text{lb} \cdot \text{in}$
 $N \cdot m \times 0.738 = \text{lb} \cdot \text{ft}$
 $N \cdot mm \times 0.142 = \text{oz} \cdot \text{in}$
 $mPa \cdot s = \text{cP}$

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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