

LOCTITE[®] ABLESTIK E 3104

November 2020

PRODUCT DESCRIPTION

LOCTITE[®] ABLESTIK E 3104 provides the following product characteristics:

Technology	Epoxy
Appearance, Resin (Part A)	Yellow
Appearance, Hardener (Part B)	Black
Appearance (Mixed)	Black
Components	Two components - requires mixing
Mix Ratio by volume: Part A: Part B	3 : 2
Mix Ratio by weight: Part A: Part B	3 : 2
Product Benefits	<ul style="list-style-type: none"> Non-conductive
Cure	Heat cure
Application	Electronic adhesive, Component assembly

LOCTITE[®] ABLESTIK E 3104 is a two-component adhesive formulated for use in general assembly applications of electronic devices.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties (Resin)

Viscosity @ 25 °C, mPa·s (cP)	17,000
Shelf Life - Refer to package label	

Part B Properties (Hardener)

Viscosity @ 25 °C, mPa·s (cP)	7,000
Shelf Life - Refer to package label	

Mixed Properties

Viscosity @ 25 °C, mPa·s (cP)	13,000
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TYPICAL CURING PERFORMANCE

Gel Time

For 100 ml, minutes	20
For Thin Film, minutes	30

Recommended Cure

45 minutes @ 60°C or
40 minutes @ 80°C*

*Actual cure time will depend on thermal mass of components, method of heating and other conditions. Cure time can be as low as 10 minutes under appropriate conditions.

The above cure profile(s) are guideline recommendation(s). These conditions (time and temperature) may vary based on customers' experience and specific 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, m/m/°C	50×10 ⁻⁶
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Electrical Properties

Volume Resistivity, ohm-cm	5×10 ¹⁵
Dielectric Strength, volts/mil	560
Dielectric Constant / Dissipation Factor	4.7/0.0034

GENERAL INFORMATION

Please consult the Safety Data Sheet (SDS) for safe handling information of this product.

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.

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. 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. 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.
3. Blend components by hand, using a kneading motion, for 2 to 3 minutes. Scrape the bottom and sides of the mixing container frequently to produce a uniform mixture.
4. If possible, power mix for an additional 2 to 3 minutes. Avoid high mixing speeds. This can entrap excessive amounts of air. It can also cause overheating of the mixture, resulting in reduced working life.
5. If the adhesive is transferred to a final dispensing reservoir, care must be exercised to avoid entrapment of contaminations and/or air into the adhesive.
6. Adhesive must be completely used within the products recommended work life.
7. Alternate dispense amounts may be used depending on the application requirements.
8. Star or crossed shaped dispense patterns will yield fewer bondline voids than the matrix style of dispense pattern.

Storage

Store in original, tightly covered containers in clean, dry areas. Storage information may be indicated on the product container labeling.

Refer to package label for proper storage condition.

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 Henkel Representative.

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.

Conversions

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

Disclaimer

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Reference 1