

LOCTITE ABLESTIK 5020K

April 2014

PRODUCT DESCRIPTION

LOCTITE ABLESTIK 5020K provides the following product characteristics:

Technology	Epoxy Film
Appearance	white
Cure	Heat cure
Product Benefits	- Thermally conductive - High purity
Application	Assembly
Adhesive Film Thickness	4 mil
Carrier Type	Glass fabric
pH	5.6
Typical Assembly Applications	Substrate attach

LOCTITE ABLESTIK 5020K high purity adhesive is designed for substrate attach.

MIL-STD-883

LOCTITE ABLESTIK 5020K meets the requirements of MIL-STD-883, Method 5011.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Work Life @ 25°C, months	6
Shelf Life @ -40°C, year	1
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

1 hour @ 150°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

Coefficient of Thermal Expansion ppm/°C:	
Below Tg	45
Above Tg	270
Glass Transition Temperature, °C	109
Thermal Conductivity @ 121°C, W/(m-K)	0.7
Extractable Ionic Content, @ 100°C ppm:	
Chloride (Cl-)	60
Sodium (Na+)	20
Potassium (K+)	1
Water Extract Conductivity, µmhos/cm	10
Weight Loss @ 300°C, %	0.3

Electrical Properties

Volume Resistivity, ohms-cm	8×10 ¹⁴
Dielectric Constant @ 1kHz	4.4
Dissipation Factor @ 1kHz	0.005

TYPICAL PERFORMANCE OF CURED MATERIAL

Miscellaneous

Lap Shear Strength :	
Al to Al @ 25°C, psi	3,000

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. DO NOT open the package before contents reach ambient temperature.
3. Any moisture that collects on the thawed package should be removed prior to opening the package.

DIRECTIONS FOR USE

1. Place precut adhesive film between clean surfaces to be bonded.
2. Assemble components.
3. Apply spring loaded clamp or dead weight to provide continuous pressure of at least 2 to 10 psi during cure cycle.
4. Place assembly in a preheated oven and cure at the recommended cure schedule.

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

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

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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