

LOCTITE® ABLESTIK ABP 2035SCR

November 2023

PRODUCT DESCRIPTION

LOCTITE® ABLESTIK ABP 2035SCR provides the following product characteristics:

Technology	Proprietary hybrid chemistry
Appearance	Red
Cure	Heat cure
Product benefits	• One component • Low stress • Snap curable • Low cure temperature • Good dispense behavior • Compatible for use with encapsulant material
Application	Die attach
Filler type	Silica
Typical package application	Smart card

LOCTITE® ABLESTIK ABP 2035SCR non-conductive die attach adhesive has been formulated for use in high throughput die attach applications. This material is designed to minimize stress and resulting warpage between dissimilar surfaces.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield CP51, 25 °C, mPa-s (cP):	
Speed 5 rpm	9,830
Thixotropic index (0.5/5 rpm)	4
Work life @ 25°C, hours	24
Shelf life @ -40°C, (from date of manufacture), days	365

TYPICAL CURING PERFORMANCE

Cure schedule

2 minutes @ 120°C

Alternate cure schedule

30 minutes @ 100°C or
60 minutes @ 80°C

The above cure profile(s) are guideline recommendations. These cure 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, ppm/°C	
Below Tg	50
Above Tg	135
Glass transition temperature (Tg) by TMA, °C	118
Thermal conductivity, W/(m-K)	0.4
Extractable ionic content, ppm:	
Chloride (Cl-)	<10
Sodium (Na+)	<10
Potassium (K+)	<10
DMA modulus	
@25°C	N/mm ² (psi) 1,500 (217,556)
@150°C	N/mm ² (psi) 80 (11,603)
@250°C	N/mm ² (psi) 70 (10,152)

TYPICAL PERFORMANCE OF CURED MATERIAL

Sample cured 2 minutes @ 120°C

Miscellaneous

Die shear strength	
2 x 2 mm die size, kg-f:	
Si die on FR4	10
3 x 3 mm die size, kg-f:	
Si die on Ni	20
Si die on Ag	21
Si die on Cu	19.5
Si die on BGA	21.5

GENERAL INFORMATION

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

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 -40°C, the adhesive should not be re-frozen.

Directions for use

1. Thawed adhesive should be immediately 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 the specifications of this product.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel 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.

Conversions

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

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Reference 2