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LOCTITE

Technical Data Sheet

LOCTITE ABLESTIK E 8502-1

April 2019

PRODUCT DESCRIPTION

LOCTITE ABLESTIK E 8502-1 provides the following product characteristics:

Technology	Modified epoxy
Appearance	Off-white
Cure	Heat cure
Product Benefits	• One component • Low stress • Thermally conductive • Flexible for Bonding Mismatched Adherends
Application	Assembly
Operating Temperature	-45 to 200 °C
Typical Package Application	Heat sink attach and Substrate attach

LOCTITE ABLESTIK E 8502-1 is a solventless modified epoxy adhesive that combines low stress with good adhesion on nearly all surfaces and is flexible for mismatched CTE applications.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield , 25 °C, mPa·s (cP):	
Speed 10 rpm, # 6	40,000 to 50,000
Specific Gravity	1.15 to 1.2
Shelf Life @ -25 to -18°C, days	183

Flash Point - See SDS

TYPICAL CURING PERFORMANCE Cure Schedule

90 minutes @ 120°C or
60 minutes @ 150°C or
15 minutes @ 175°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 :

Glass Transition Temperature(Tg), °C	60 to 70
Thermal Conductivity , W/(m-K)	0.6
Young's Modulus, psi, maximum:	
@ 25 °C	87,000 to 130,500
@ 50°C	29,000 to 87,000
@ 100°C	725 to 2,900
Extractable Ionic Content, :	
Chloride (Cl-)	≤200
Sodium (Na+)	≤10
Potassium (K+)	≤10
Ammonia (NH3+)	≤75
Hardness, Shore A	40 to 50
Weight Loss, %:	
Cured 2 hours at 140°C (TML)	0.93

Electrical Properties:

Volume Resistivity, ohm-cm @ 25ºC	4.07×10^{13}
Surface Resistivity, ohms	1.7×10^{14}

TYPICAL PERFORMANCE OF CURED MATERIAL

Physical Properties :

Tensile Strength, MPa	≥3

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. After removing from the freezer, set the syringes to stand vertically while thawing.

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

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.

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

Optimal Storage : -25 to -18 °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
(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
N x 0.225 = lb
N/mm x 5.71 = lb/in
psi x 145 = N/mm²
MPa = N/mm²
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Disclaimer
Note:
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