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LOCTITE

Technical Data Sheet

LOCTITE ABLESTIK ABP 8035M

March 2019

PRODUCT DESCRIPTION

LOCTITE ABLESTIK ABP 8035M provides the following product characteristics:

Technology	Silicone Hydrosilylation
Appearance	Clear to slightly hazy liquid
Product Benefits	• One component • Good dispensing characteristics • Low outgassing • High modulus at high temperature • Good worklife stability • High adhesion
Cure	Heat cure
Application	Semiconductor material, Adhesive
Typical Package Application	High brightness LED

LOCTITE ABLESTIK ABP 8035M is a Non-conductive die attach adhesive designed for LED die attach applications. This silicone based product has unique properties including excellent worklife stability which ensure it can be used continuous for 24 hours pin-transfer test. Its low outgas ratio during cure and high adhesion strength, good thermal stability, high transparent ratio and high storage modulus properties after cure are important for LED applications. This adhesive can be cured in conventional box at 175°C for 1 hour.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Thixotropic Index (0.5/5 rpm)	4.0
Viscosity, Brookfield CP51, 25 °C, mPa·s (cP):	
Speed 5 rpm	2,500
Work Life @ 25 °C, hours	24
Shelf Life @ -20ºC , days	365
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

30 minutes ramp to 175ºC; hold 60 minutes in air atmosphere

Alternate Cure Schedule

1 hour @ 175°C in air atmosphere

For specific application. This curing profile can help to control the flow of the paste during curing.

Weight Loss on Cure

Weight Loss on Cure, %	-0.5

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

Dynamic Tensile Modulus, DMA:

@ -65°C	N/mm²	620
	(psi)	(89,900)
@ 25°C	N/mm²	240
	(psi)	(34,800)
@ 150°C	N/mm²	110
	(psi)	(16,000)
@ 250°C	N/mm²	100
	(psi)	(14,500)

TYPICAL PERFORMANCE OF CURED MATERIAL

Shear Strength

Die Shear Strength:

1 x 1 mm die @ 25 °C Kg:

Si die on Glass	2.5
Si die on Laminate	1.5
Si die on Si-Ag/ Cu	1.7

GENERAL INFORMATION

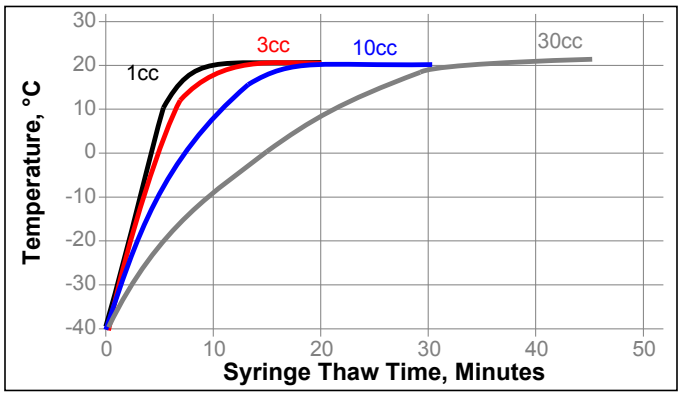
For safe handling information on this product, consult the Safety Data Sheet, (SDS).

THAWING:

1. Allow container to reach room temperature before use.
2. After removing from the freezer, set the syringes to stand vertically while thawing.
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 -20°C, the adhesive should not be re-frozen.

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DIRECTIONS FOR USE

1. Thawed material 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.

STORAGE:

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

Optimal Storage: -20 °C. Storage below minus -15 °C or greater than minus -35 °C can adversely affect product properties.

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:
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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