

LOCTITE® ABLESTIK ABP 8200TNP

June 2025

PRODUCT DESCRIPTION

 $\mathsf{LOCTITE}^{\circledR}$ ABLESTIK ABP 8200TNP provides the following product characteristics:

| Technology | Proprietary hybrid chemistry | | | |
|-----------------------------|---|--|--|--|
| Appearance | Silver | | | |
| Filler type | Silver | | | |
| Product benefits | Excellent adhesion to various LDFs Excellent RBO control Oven curable Snap curable Robust reliability Formulated without PFAS ingredients | | | |
| Cure | Heat cure | | | |
| Application | Conductive die attach paste | | | |
| Typical package application | SOP, SOT, DFN, QFN, QFP | | | |
| Key substrates | Cu, rough Cu, Ag and PPF | | | |

LOCTITE® ABLESTIK ABP 8200TNP silver filled conductive adhesive is a die attach paste designed for high reliability package with good thermal and electrical conductivity. This material offers excellent adhesion with small to large die size on a wide variety of metal surfaces, including Cu, rough Cu, Ag and PPF lead-frames.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Brookfield CP51, 25°C, mPa.s (cP)

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|---------------------------------------|----|---|---|--------|
| Speed 5 rpm | | | | 10,000 |
| Thixotropic index (0.5/5 rpr | n) | | | 5.3 |
| Work life @ 25°C, hours | | | | 24 |
| Shelf life @ -40°C, days | | | | 365 |

TYPICAL CURING PERFORMANCE

Recommended oven cure schedule

30 minutes ramp to 175°C + 60 min @175°C, N2 condition

Recommended snap cure schedule

| Zone No. | 1 | 2 | 3 | 4 | 5 | 6 | TOTAL TIME |
|----------|-----|-----|-----|-----|-----|-----|---------------|
| Temp, °C | 140 | 180 | 200 | 200 | 200 | 160 | 240 s. |

N2 condition

Weight loss on cure

Weight loss on cure, %

7

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

| Glass transition temperature (Tg) by DMTA, °C | 240 |
|---|-------|
| Coefficient of thermal expansion, (CTE) by TMA, ppm/°C: | |
| Below Tg | 61 |
| Above Tg | 195 |
| Thermal conductivity, W/(m-k) | 2.5 |
| Tensile modulus, by DMA, MPa | |
| @25°C | 4,515 |
| @150°C | 2,180 |
| @250°C | 972 |
| Extractable ionic content, ppm | |
| Chloride (CI-) | <10 |
| Sodium (Na+) | <10 |
| Potassium (K+) | <30 |

Electrical properties

Volume resistivity, ohms-cm 0.0001

Adhesion properties

Die shear strength, 3x3mm, Si die, kg/f
on Cu LF
@25°C 15
@260°C 6
on Ag LF
@25°C 15
@260°C 6
on PPF LF
@25°C 15
@260°C 15

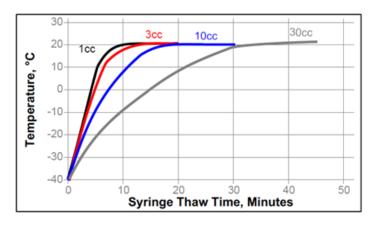


GENERAL INFORMATION

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. Thaw times depend on the syringe size.
- 4. Consult handling guide for more information.
- 5. 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.
- DO NOT re-freeze. Once thawed to 25°C, the adhesive should not be re-frozen.



Direction for use

- Thawed material should immediately be placed on dispense equipment for use.
- 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.
- Adhesive must be completely used within the product's recommended work life.
- 4. Alternate dispense amounts may be used depending on the application requirements.
- 5. Star or crossed shaped dispense patterns will yield fewer bondline voids than the matrix style of dispense pattern.

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 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 the specifications of this product.

Conversions

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

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