

LOCTITE ABLESTIK XE 70202

February 2016

PRODUCT DESCRIPTION

LOCTITE ABLESTIK XE 70202 provides the following product characteristics:

Technology	Epoxy
Appearance	Black
Cure	Heat cure
Product Benefits	- One component - Low viscosity - Good thermal cycling reliability
Operating Temperature Range	-40 to +180°C
Application	Non-conductive adhesive, Potting

LOCTITE ABLESTIK XE 70202 epoxy adhesive is designed for applications requiring outstanding thermal shock properties. This material exhibits high adhesion to a variety of materials such as reinforced plastics (PA, PBT), metals and ceramic. It has excellent resistance to most automotive fluids and oils.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity, Rheometer @ 10 s⁻¹, mPa·s (cP):

@ 25°C	17,000
@ 40°C	4,500
@ 50°C	2,500

Density, g/cm³ 1.62

Shelf Life (from date of manufacture):

@ 4 to 6°C, days	180
@ 25°C, days	7

Flash Point - See SDS

TYPICAL CURING PERFORMANCE

Cure Schedule

30 minutes @ 150°C

60 minutes @ 120°C

Due to the material's high reactivity, the maximum allowable volume is 50cc when cured at 120°C temperature.

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

Hardness, Shore D	90
Glass Transition Temperature (T _g) by TMA, °C:	
(T _g) by TMA	97
(T _g) by DMA	125
Coefficient of Linear Thermal Expansion, ppm/°C	35

Young's modulus (E) :

@ -40°C	N/mm ² 5,606 (psi) (813,081)
@ -20°C	N/mm ² 5,371 (psi) (778,997)
@ 0°C	N/mm ² 5,191 (psi) (752,890)
@ 25°C	N/mm ² 4,961 (psi) (719,532)
@ 50°C	N/mm ² 4,729 (psi) (685,883)
@ 100°C	N/mm ² 3,287 (psi) (476,739)
@ 150°C	N/mm ² 80 (psi) (11,603)
@ 200°C	N/mm ² 96 (psi) (13,923)

Thermal Conductivity, W/(m·K)

0.5

TYPICAL PERFORMANCE OF CURED MATERIAL

Shear Strength

Tensile Lap Shear Strength:

Al to Al	N/mm ² 21.8 (psi) (3,161)
PBT to PBT	N/mm ² 5.2 (psi) (754)

GENERAL INFORMATION

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

DIRECTIONS FOR USE

- All surfaces to be bonded should be clean and free of grease, dirt, and other chemical contaminants.
- LOCTITE ABLESTIK XE 70202 can be applied by .
- For easy flow and best dispensing, the minimal recommended needle diameter is +/- 0.5mm.
- Some filler settling is common during shipping and storage. For this reason, it is recommended that the contents of the shipping container be thoroughly mixed prior to use.
- In some cases, it may be desirable to preheat the product up to a maximum of 50°C to facilitate flow.
- To avoid premature gelling, do not heat the product at temperatures higher than 60°C.

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 : 4 to 25 °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

$$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$$

$$\text{kV/mm} \times 25.4 = \text{V/mil}$$

$$\text{mm} / 25.4 = \text{inches}$$

$$\text{N} \times 0.225 = \text{lb}$$

$$\text{N/mm} \times 5.71 = \text{lb/in}$$

$$\text{psi} \times 145 = \text{N/mm}^2$$

$$\text{MPa} = \text{N/mm}^2$$

$$\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$$

$$\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$$

$$\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$$

$$\text{mPa}\cdot\text{s} = \text{cP}$$

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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Reference 1