

LOCTITE ABLESTIK A 401-12

October 2014

PRODUCT DESCRIPTION

LOCTITE ABLESTIK A 401-12 provides the following product characteristics:

Technology	Epoxy
Appearance	Black
Product Benefits	<ul style="list-style-type: none"> • One component • Thermally conductive • High strength • Solvent-free
Cure	Heat cure
Filler Type	Aluminum Oxide
Application	Assembly
Operating Temperature	120 °C

LOCTITE ABLESTIK A 401-12 is designed for high strength structural bonding applications. LOCTITE ABLESTIK A 401-12 is an lower viscosity version of ECCOBOND A401 adhesive.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Viscosity @ 25 °C, mPa·s (cP)	43,000
Density , g/cm ³	1.8
Pot Life:	
@ 40°C, days	4
@ 50°C, hours	10
@ 60°C, hours	4
Shelf Life @ 0 to 8°C (from date of manufacture), months	6
Flash Point - See SDS	

TYPICAL CURING PERFORMANCE

Cure Schedule

- 20 minute gel @ 120°C, 1 hour @ 120°C
- 3 minute gel @ 160°C, 10 minutes @ 160°C
- 1 minute gel @ 180°C, 5 minutes @ 180°C

This product generates moderate heat during cure. No adverse exotherm effects are obtained when cured at 120°C in masses up to approximately 20 grams.

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:	
@ 25°C (minimum)	80
@ 120°C (minimum)	75
Glass Transition Temperature, °C	118
Coefficient of Linear Thermal Expansion, 10 ⁻⁶ K ⁻¹	40
Thermal Conductivity , W/(m·K)	0.57
Stroke Cure @ 160°C, seconds	40

TYPICAL PERFORMANCE OF CURED MATERIAL

Miscellaneous

Tensile Lap Shear Strength @ 25°C	N/mm ²	12
	(psi)	(1,740)

GENERAL INFORMATION

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

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.
2. Heat up to 40°C to decrystallise product (maximum 3 hours, depending on packaging).

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 : 0 to 8 °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
 N/mm² x 145 = psi
 MPa = N/mm²
 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

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 0.1