Technical Data Sheet

LOCTITE ABLESTIK ICP 4001

March 2018

PRODUCT DESCRIPTION

LOCTITE ABLESTIK ICP 4001 provides the following product characteristics:

Technology	Silicone
Appearance	Silver
Cure	Heat cure
Product Benefits	• One component • High flexibility • High adhesion • Good electrical conductivity • High operating temperature
Operating Temperature	-40 to 200ºC
Application	Assembly, ECA
Filler Type	Silver

LOCTITE ABLESTIK ICP 4001 silicone-based, electrically conductive adhesive is recommended for use in attaching devices or mount components in circuit assembly applications. It is specifically designed to provide reliable interconnects exposed to prolonged vibrational energy and high operating temperatures. LOCTITE ABLESTIK ICP 4001 has been optimized to maintain its flexibility and survive at operating temperatures as high as 200ºC.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Solids Content, %	85
Viscosity :	
Plate 2 cm @ Shear rate 15 s^{-1}, mPa·s (cP)	40,000
Increase after 24 hours @ RT, %	<50
Thixotropic Index	2.1
Density, g/cm³	3.9
Shelf Life @ -40ºC , months	4

TYPICAL CURING PERFORMANCE

Cure Schedule

35 minutes @ 140°C

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

Hardness, Shore A		>75
Elongation @ break, %		>30
Young's Modulus (E) @ 0ºC	N/mm²	40
	(psi)	(5,800)
Coefficient of Thermal Expansion, ppm/°C		370
Thermal Conductivity, W/(m-K)		2.3

Electrical Properties

Volume Resistivity, ohms-cm	4×10^{-4}

TYPICAL PERFORMANCE OF CURED MATERIAL

Shear Strength

Tensile Lap Shear Strength:

Al to Al	N/mm²	>1.7
	(psi)	(245)

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. Packages removed from storage should be allowed to return to ambient temperature before use.
2. This material is ready to use after 1 hour at 25ºC.
3. This material is best suited for stencil printing application.

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. Storage below -40°C or above -20 °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.

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.

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

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