Technical Data Sheet

LOCTITE ABLESTIK 27

September 2014

PRODUCT DESCRIPTION

LOCTITE ABLESTIK 27 provides the following product characteristics:

Technology	Epoxy
Technology (Part B)	Amine
Appearance - Part A	Clear liquid
Appearance - Part B	Clear liquid
Components	Two component - requires mixing
Mix Ratio, by weight - Part A: Part B	100 : 30
Product Benefits	• Optically clear • Low viscosity • Low temperature attach • Room temperature cure capability
Cure	Room temperature or Heat cure
Application	Non-conductive adhesive
Key Substrates	Glass, Metals and Most plastics
Operating Temperature	-65 to 95ºC

LOCTITE ABLESTIK 27 adhesive is designed for bonding dissimilar substrates for use in low temperature applications. It is designed to provide strong, resilient bonds even in cryogenic conditions.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Part A Properties

Brookfield Viscosity , mPa·s (cP)	7,500
Density, g/cm³	1.25
Flash Point - See SDS	

Part B Properties

Brookfield Viscosity , mPa·s (cP)	35
Shelf Life @ 25°C, days	365

Mixed Properties

Density , g/cm³	1.15
Brookfield Viscosity , mPa·s (cP)	400

TYPICAL CURING PERFORMANCE

Cure Schedule

24 hours @ 25°C
4 hours @ 45°C
2 hours @ 65°C
1 hour @ 95°C

For optimum performance, follow the initial cure with a post cure of 2 to 4 hours at the highest expected use temperature.

Alternate cure schedules may also be possible. Contact your Henkel representative for further information.

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

Coefficient of Thermal Expansion , ppm/°C	72
Thermal Conductivity , W/(m-K)	0.2

Electrical Properties

Volume Resistivity @ 25ºC, ohm-cm	10^{15}
Dielectric Strength, kV/mm	15.7
Dielectric Constant / Dissipation Factor @ 60Hz	3.6 / 0.03

TYPICAL PERFORMANCE OF CURED MATERIAL

Shear Strength

Tensile Lap Shear Strength , Al to Al:

@ 25ºC	N/mm²	31
	(psi)	(4,500)
@ 65ºC	N/mm²	15.1
	(psi)	(2,200)

GENERAL INFORMATION

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

DIRECTIONS FOR USE

1. Certain resins and hardeners are prone to crystallization. If crystallization does occur, warm the contents of the shipping container to 50 to 60ºC until all crystals have dissolved. Shipping container must be loosely covered during the warming stage to prevent any pressure build-up.
2. Be sure the shipping container is loosely covered during the warming stage to prevent any pressure build-up.
3. Allow contents to cool to room temperature before continuing.
4. 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.
5. Accurately weigh resin and hardener into a clean container in the recommended ratio. Weighing apparatus having an accuracy in proportion to the amounts being weighed should be used.
6. Blend components by hand, using a kneading motion, for 2 to 3 minutes and scrape the bottom and sides of the mixing container frequently to produce a uniform mixture.
7. If possible, power mix for an additional 2 to 3 minutes. Avoid high mixing speeds. This can entrap excessive amounts of air. It can also cause overheating of the mixture, resulting in reduced working life.
8. Apply adhesive to all surfaces to be bonded and join together.
9. In most applications only contact pressure is required.

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 in original, tightly covered containers in clean, dry areas. Storage information may be indicated on the product container labeling.

Optimal Storage: 25°C. Storage below 25°C or greater than 25°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
N/mm^2 x 145 = psi
MPa = N/mm^2
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 0.0