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LOCTITE

Technical Data Sheet

LOCTITE 3129

May 2019

PRODUCT DESCRIPTION

LOCTITE 3129 provides the following product characteristics:

Technology	Epoxy
Chemical Type	Epoxy
Appearance (uncured)	Black
Components	One component - requires no mixing
Viscosity	Medium
Cure	Heat cure (low temperature)
Application	Bonding heat sensitive components

LOCTITE 3129 is a one part, heat curable epoxy. This product is designed to cure at low temperature and gives excellent adhesion on a wide range of materials in considerably short time. Typical applications include Memory cards, CCD/CMOS Assemblies. Particularly suited where low curing temperatures are required for heat sensitive components.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific Gravity @ 25 °C	1.52
Viscosity @ 25°C, mPa·s (cP):	
Haake PK100, Cone PK1, 2°:	
Shear rate @ 2 s^{-1}	46,000
Shear rate @ 20 s^{-1}	12,000
Casson Viscosity @ 25 °C, mPa·s (cP):	
Haake PK100, Cone PK1, 2°	4,200
Yield Point, 25 °C, mPa·s	39,000
Pot life @ 25 °C, days	>21

TYPICAL CURING PERFORMANCE

Recommended Cure Schedule

5 to 10 minutes @ 80ºC

With all curing systems, the time required for cure depends on the rate of heating. Conditions where a hot plate or heat sink is used are optimum for fastest cure. Cure rate depends on the mass of material to be heated and intimate contact with the heat source. Use suggested cure conditions as general guidelines. Other cure conditions may yield satisfactory results.

The above cure profile is a guideline recommendation. 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

Cured for 30 minutes @ 80 °C

Physical Properties:

Coefficient of Thermal Expansion, ISO 11359-2, K^{-1}:		
alpha 1		47
alpha 2		145
Glass Transition Temperature, °C: (Tg) via DMA		35
Storage Modulus, @ 25°C by DMA	GPa	5.4
	(psi)	(780,000)
Tensile Modulus	MPa	2,000
	(psi)	(290,000)
Tensile Strength	MPa	36.4
	(psi)	(5,300)

TYPICAL PERFORMANCE OF CURED MATERIAL

Adhesive Properties

Cured for 30 minutes @ 80 °C

Lap Shear Strength, ISO 4587:		
Epoxyglass	N/mm²	15.4
	(psi)	(2,230)

GENERAL INFORMATION

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

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: -15 °C to -25 °C. Storage below minus (-)25 °C or greater than minus (-)15 °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
µm / 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

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

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