

LOCTITE 3626M

July 2014

PRODUCT DESCRIPTION

LOCTITE 3626M provides the following product characteristics:

Technology	Epoxy
Chemical Type	Epoxy
Appearance (uncured)	Red gel-like material ^{LMS}
Components	One component - requires no mixing
Cure	Heat cure
Application	Surface mount adhesive
Key Substrates	SMD components to PCB
Other Application Areas	Small parts bonding
Dispense Method	Syringe and Stencil print

LOCTITE 3626M is designed for bonding of surface mounted devices to printed circuit boards prior to wave soldering. This material is formulated to give excellent dot size and shape control when applied with a stencil using hand print or machine print process. LOCTITE 3626M is halogen free and offers a very high thermal mechanical strength even at temperatures as high as 260°C.

TYPICAL PROPERTIES OF UNCURED MATERIAL

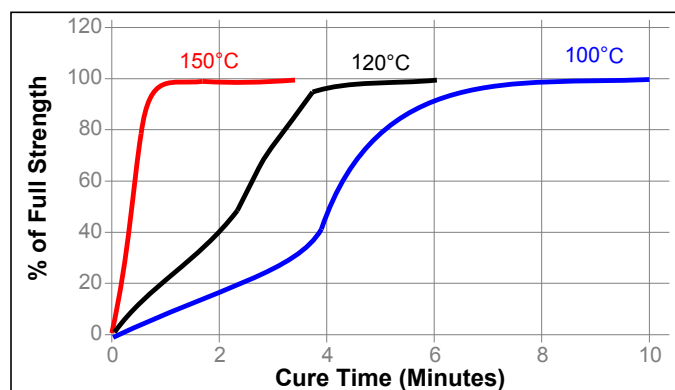
Specific Gravity @ 25 °C	1.4
Density, g/cm ³	1.3
Flash Point - See SDS	
Yield Point, 25 °C, Pa	190 to 250 ^{LMS}
Cone & Plate Rheometer:	
Haake PK 100, M10/PK 1 2° Cone	
Casson model @ 0.4 - 30 s ⁻¹	

TYPICAL CURING PERFORMANCE

Recommended conditions for curing are exposure to heat above 100°C, (minimum 120 seconds at 130°C or 90 secs at 150°C at the bondline). Rate of cure and final strength will depend on PCB type and population, ramp up temperature, stability of the component temperature and residence time at temperature.

Cure Speed vs. Time, Temperature

The following graph shows the rate of conversion with time under certain temperature.



TYPICAL PROPERTIES OF CURED MATERIAL

Cured for 30 minutes @ 150 °C

Physical Properties

Coefficient of Thermal Expansion, ASTM D696, K ⁻¹ :	
Below Tg, µm/m°C	48
Above Tg, µm/m°C	184
Glass Transition Temperature (Tg), °C	138

TYPICAL PERFORMANCE OF CURED MATERIAL

Shear Strength

Shear Strength, ISO 4587, ASTM D1002, Sample cured 30 minutes @ 150°C:

Grit Blasted Mild Steel	N/mm ²	18
	(psi)	(2,610)

Push Strength, per IPC SM817, Sample cured 5 minutes @ 125°C

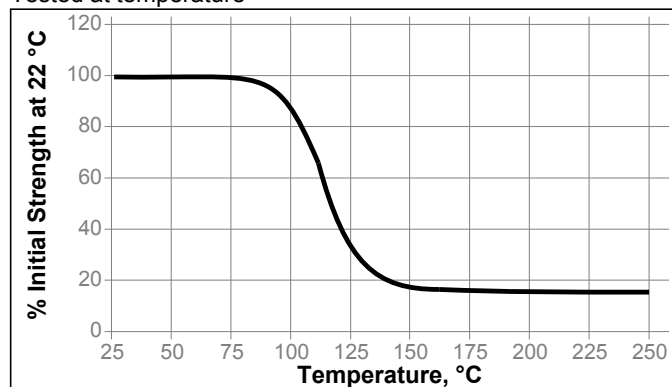
TYPICAL ENVIRONMENTAL RESISTANCE

Cured for 30 minutes @ 150 °C

Lap Shear Strength, ISO 4587:
Mild steel (grit blasted)

Hot Strength

Tested at temperature



Resistance to Hot Solder Dip

Cured for 90 seconds @ 150 °C

Hot Solder Dip, IPC SM817, TM-650 Method 2.4.42.1, Pass/Fail:

R-1206 on bare FR4 board:	
Supported 60 seconds above solder bath @ 260°C and dipped for 10 seconds	Pass

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Reference **N/A**