CREATIVEMATERIALS

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ISO 9001 CERTIFIED

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122-31

THIXOTROPIC, HI-TEMPERATURE RESISTANT, THERMALLY CONDUCTIVE, LOW STRESS UNDERFILL ADHESIVE

DESCRIPTION: 122-31 is a two component, thixotropic, high temperature resistant, nitride filled, thermally conductive, low stress under fill adhesive. Suitable for application by, stencilling, dipping and syringe dispensing, this product is specifically designed for bonding silicon die to FR-4 boards in IC packaging applications. The 122-31 is designed to provide outstanding adhesion to FR-4 board as well as a variety of other substrates. This material is useful in bonding substrates that have dissimilar coefficients of thermal expansion. 122-31 is a version of CMI 122-24, that has a higher thixotropic index.

	Part A	Part B	Mixture
Appearance:	Grey	Amber	Grey
Viscosity:	Paste	300 cps	125,000 cps
Mix Ratio (by weight):	100	3	-----
Pot Life:	-----	-----	>96 hours

MIXING INSTRUCTIONS: Filler settles in storage. Resuspend filler prior to using. Premix Part A in original container prior to adding curing agent, mix gently in order to prevent whipping air into the adhesive. Add Part B to Part A and mix gently until uniform. Apply adhesive to surface to be bonded by hand and/or automatic method and assemble. Apply slight pressure to assure good mating of surfaces and formation of filet.

CURING INSTRUCTIONS: Full Cure: 1 hour @ 80°C + 1 hour @ 125°C

TYPICAL CURED PROPERTIES:

Consistency	Smooth Paste
Fillers	Nitride Blends
Hardness (Shore D)	> 90
Coef. of Therm. Exp. (in/in°C X 10^{-6})	31
Thermal Conductivity (W/mK)	2.35
Cure Shrinkage (%)	0.17
Water Absorption (%)	<0.22
Dielectric Strength (volts/mil)	425
Volume Resistivity (Ω-cm)	1 X 10^{14}
Power Factor (60 HZ)	0.038
Dielectric Constant (60 HZ)	4.8
Shear Strength (psi)	2250
Useful Temperature Range (°C)	-55 to 220

STORAGE: Shelf life: 12 months at 25°C, in unopened, unmixed containers.

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