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NICKEL FILLED EPOXY CONDUCTIVE GLUE - GT 4120

GT 4120 is a 100% solid two-component nickel filled conductive epoxy.

Designed for supplementary use, it is never intended to replace silver loaded epoxy, which offers optimal conductivity and performance.

This nickel epoxy is recommended for the repair of circuits or sheathing applications, in which electrical conductivity is not critical.

GT 4120 comes as an easy-handling smooth paste; it can be applied by screen printing, standard application system or by syringe. It has good powers of adhesion on a range of substrates including most metals and plastics, ceramics and glass.

GT 4120 epoxy resin is easy to mix (1 to 1 by weight) with a long usable life after mixing. It polymerises quickly at relatively low temperatures.

This epoxy can be used for other applications where its non-reflective properties could be significant. And there is no need to add any solvent to this 100% solid system. It does not dry out during its mixed usable life of 3-4 days.

It withstands intermittent temperatures of 300-400°C, with no detectable degradation below 430°C.

PROPERTIES	GT 4120
Color	Black
Consistency	Slightly thixotropic smooth paste
Density g/cm ³	3.5
Volume resistivity Ω-cm	0.35
Mixture viscosity at 25°C	30000 cps
Tg at 150°C for one hour	95°C
Hardness shore D	73
Tensile strength and tear resistance	147.7 kg/cm
Coefficient of thermal expansion (150°C for 1 hour)	
Before Tg	89 x 10 ⁻⁶ mm/mm/°C
After Tg	139 x 10 ⁻⁶ mm/mm/°C
Continuous working temperature	150°C
Intermittent working temperature	300-400°C
Degradation temperature	430°C
Usable life after mixing (at 25°C)	3-4 days
Usable life before mixing (at 25°C)	1 year

POLYMERISATION

Temperature	Minimum setting time
150°C	5 minutes
120°C	15 minutes
80°C	90 minutes

Mixing ratios

Part A (epoxy resin and nickel powder) 1
Part B (hardener and nickel powder) 1

Note

Mix parts A and B separately, ensuring good mixing of the individual components, before mixing them together.