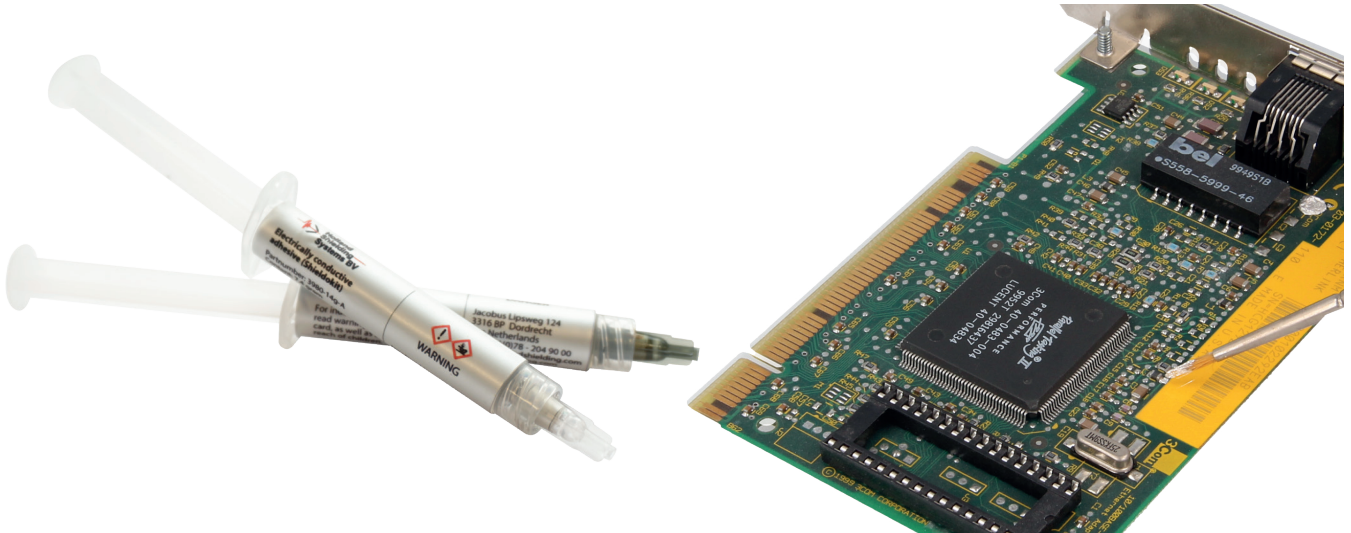


# ELECTRICALLY CONDUCTIVE GLUE (SHIELDOKIT) 3980

Electrically conductive glue / Electrically conductive adhesive



Shieldokit creates an electrically and thermally conductive connection between components (electrically conductive adhesive). One of the applications is EMI shielding. This conductive glue can be used to fill uneven surfaces because of its viscosity, which is comparable to peanut butter.

The product consists of a two-component epoxy-based glue containing 65% silver. It is a paste which can be applied to metals (copper, aluminium, stainless steel, brass, etc.), ceramics and most plastics.

Shieldokit shapes a strong connection with excellent conductivity. The two components base offers a hardening at room temperature and the adhesive is thereby suitable to connect temperature-sensitive components.

## Cured properties

Colour	Silver grey	-
Density	2.5 g/ml	Hydrostatic Weighing
Service Temperature Range	-50-150 °C	-
Resistivity	1.8 x 10 <sup>-3</sup> Ω <sup>2</sup> /cm	ASTM D257
Hardness	78 D	ASTM D2240
Tensile Strength	13 N/mm <sup>2</sup>	ASTM D638
Compressive Strength	69 N/mm <sup>2</sup>	ASTM D695
Lap Shear	5.6 N/mmp <sup>2</sup> (Stainless steel) 5.1 N/mm <sup>2</sup> (Aluminum)	ASTM D1002
Glass Transition Temperature (T <sub>g</sub> )	35 °C	ASTM E1545
Coefficient of Thermal Expansion (CTE)	58 ppm/°C (Prior T <sub>g</sub> ) 234 ppm/°C (After T <sub>g</sub> )	ASTM E831
Thermal Conductivity @ 25 °C	1.5 W/(m·K)	
Specific Heat Capacity @ 25 °C	0.7 J/(g·K)	ASTM E1461
Thermal Diffusivity @ 25 °C	0.9 mm <sup>2</sup> /s	
Weight Loss @ 155 °C (600 hrs)	2.9 %	-

## Used for:

- Gluing components that cannot be soldered
- Connections that require excellent electrical conductivity
- Connections that have to be thermally conductive
- Repairing non-solderable components
- Gluing objects to a plastic enclosure where an electrically conductive linkage is needed
- Restoration of flat cables, SMD components, etc.

## How to use

Read the product SDS for more detailed instructions before using this product. Clean the substrate with Isopropyl Alcohol so the surface is free of oils, dust, and other residues. Dispense material on a mixing surface or container, and thoroughly mix parts A and B together.

Once Parts A and B are mixed, the epoxy starts curing chemically. You can apply the mixed paste for 35 minutes at room temperature to apply it, spread it, position components, and work with the material before it becomes too thick or starts hardening. After this working time the viscosity increases, application becomes difficult, and the material may no longer wet surfaces properly. When done clean nozzle to prevent contamination and material buildup. Replace the cap on the syringe.

Allow to cure at room temperature for 6 hours, or cure the adhesive in an oven at one of these time/temperature options:

- 10 min @ 65 °C
- 5 min @ 80 °C

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### Liquid properties

Density	2.4 g/ml (Mixed) 2.5 g/mL (A) 2.3 g/mL (B)	ASTM D1475
Viscosity @ 25 °C	130 Pa·s (A) 30 Pa·s (B)	Brookfield Engineering labs Inc. IPCTM-65- Method 2.4.24.4
Mix Ratio	1:1 (Volume) 1.1:1 (Weight)	-
Working Time <sup>a</sup>	35 min	-
Set Time <sup>a</sup>	40 min	-
Peak Exotherm <sup>b</sup>	28 °C	ASTM D2471
Shelf Life	2 years after invoice date	

a Ambient temperature of 22 °C b Based on a 2 ml sample in a fixed container geometry.

### Storage

Store between 16 and 27 °C in a dry area, away from sunlight (see SDS). To maximize shelf life, recap product firmly when not in use.

### ORDER EXAMPLE

#### Series

**3980**