



POLYCHEM

UV/EB INTERNATIONAL CORP.

Two-Component High-Performance Conductive Silver Adhesive

Product Code: Conductive Silver Adhesive #051908-1R

Description:

This silver conductive adhesive is a two-component, 100% solid-content system. It offers significantly better properties than traditional single-component silver adhesives, such as low shrinkage, higher electrical conductivity, heat resistance, and faster cure speed at low temperatures. This silver adhesive is very stable, can be stored at room temperature, and has a long shelf life, unlike most single-component silver adhesives, which must be stored at low temperatures.

Advantages:

100% solid content

One of the highest conductivity silver adhesives available in the market

Highly stable, no need for low-temperature storage

Cured very fast after mixing the two components

Low curing temperature

Very low shrinkage (low substrate distortion)

High-temperature resistance

Excellent adhesion on various metals and non-metal substrates

Long shelf life

Specifications:

Component A : dark brown liquid

Viscosity: (@ 45 C, 10 rpm Brookfield #52 Spindle): 50,000 +/- 10,000 cps

Pot life (after mixing component A and B): 10 min.

Note: Another slow-cure type of hardener (longer pot life of 1 to 1.5 hours) can be selected upon request.

Applicable Substrate: various plastics, glass, ceramics, metals, etc. For PE, PP, PS, and PVDF substrates, surface pre-treatment (corona, plasma, primer) is recommended.

Instructions:

- 1). Mix the silver paste (Component A) thoroughly.
- 2). Take out the needed amount of component A (silver paste) and add 7%-10% weight of component B.

- 3). Mixing Component A (silver paste) and Component B (hardener) thoroughly before use.
- 4). Make sure the surface of the substrates is free from oil and dust before bonding with the mixed silver adhesive to ensure good bonding strength. If necessary, solvents such as IPA or acetone can be used to clean the substrates' surfaces.
- 5). Pot life after mixing these two components is about 10-15 min. No thinner (solvent) shall be added.

Electric Properties after Cured:

Bulk Resistivity: 0.000015- 0.000060 Ω .cm
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Note: The above numbers are the typical values and are not specifications.

Suggested Curing Conditions (choose one of the following conditions):

- (1). Temperature 115 °C x 60 seconds
- (2). Temperature 130 °C x 30 seconds
- (3). Temperature 140 °C x 30 seconds

Note: Depending on the thickness and thermal conductivity of the substrates, the curing conditions should be adjusted accordingly. Since #051908-1R has excellent high-temperature resistance, a prolonged cure time of up to three hours will not degrade its properties.

Clean-Up Method:

Uncured adhesive can be cleaned up with acetone or ethyl/isopropyl alcohol. If contacted with skin, use soap and flush with water.

Package: 10 grams (the smallest package for lab experiments or small-scale production), 100 grams, 250 grams, 500 grams, 1,000 grams /set. Weight includes Component B (hardener)

Shelf life: 12 months from the date of delivery

Recommend Storage Conditions:

Stored in a dark, dry and cool place. Always keep caps closed.

Note: Low temperature (-15 °C ~ -20 °C) storage will not affect any of its properties, but the bottle shall not be opened until it returns to room temperature to avoid contaminating the silver adhesive with water.

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