# 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 system, 100% solid content. It provides significantly better properties than traditional single component silver adhesives, such as low shrinkage, higher electric conductivity, heat resistance and faster cure speed at low temperature. This silver adhesive is very stable and can be stored at room temperature and has long storage life while most of single component silver adhesives must be stored at low temperature.

## Advantages:

100% solid content

One of the highest conductivity silver adhesive available in the market

Highly stable, no need for low temperature storage

Cured very fast after mixing 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: silver paste

Viscosity: (@ 30 C, 10 rpm Brookfield #52 Spindle): 20,000 cps

Component B (hardener): dark brown liquid

Viscosity: (@ 30 C, 10 rpm Brookfield #52 Spindle): 500 cps

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

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

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

## Instructions:

1). Mixing the silver paste (Component A) thoroughly.

2). Take out a needed amount of component A (silver paste) and add its 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 surface of the substrates.

5). Pot life after mixing these two components is about 10-15 min. No thinner (solvent) shall be added.

## Electric Properties after Cured:

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| **Bulk Resistivity**: 0.000015- 0.000060 Ω.cm |

Note: The above numbers are the typical values and are not specifications.

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

(1). Temperature 115C x 60 seconds

(2). Temperature 130C x 30 seconds

(3). Temperature 140C x 30 seconds

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

## Clean Up Method:

Un-cured adhesive can be cleaned up by acetone, ethyl/isopropyl alcohol. The adhesive system is low irritation to skin. 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 (-15C ~ -20C) storage will not affect any of its properties, but the bottle shall not be opened until it returns to room temperature to avoid water contamination to the silver adhesive.

**Polychem UV/EB International Corp. (Taipei, Taiwan)**

Tel :+886- 2- 2876-2561 E-mail: polychem@ms4.hinet.net Fax:+886- 2- 2874-2646

Website: http://polychem.tw/