

室温固化导电银胶

A2/ HA2 产品特点

A2 / HA2为两液室温固化型导电银胶。A2为主剂，HA2为硬化剂。其使用方式与一般的A-B胶极为类似。是一种无需使用任何设备的简易电性联接方式。

此产品实现了冷组装的理想，使得电子产品的电性连结不需仅依靠高温焊锡。

此产品符合RoHS & Halogen-free规范，且不含PFOS & PFOA。

使用时，将主剂与硬化剂以50:50之重量比混合均匀后，即可用于接着不同的电子元件，静置于室温2-3小时后即可固化。应用于自动化制程时，可以采用双液混合型点胶机，将均匀混合后之胶液涂布于基材面上，然后通过隧道式热烘箱，以100 °C x 1分钟；或80 °C x 2分钟，或是60 °C x 8分钟熟化。

在以下领域有很好的适用性：导电性及电子干扰有特殊要求的中小型电子元件的粘接；镀银支架和印刷电路板的基板；大于 60*60mi的晶片的贴合；适用于柔性的基材（比如FPC等）；用于通讯产品抗电磁波（EMI）上之包封与填充；电磁波（EMI）遮罩材料。此产品系列耐溶剂，附着力强，导电率高，柔韧性好，特别适合电子线路的修补及粘接，如电极引出、跳线粘结、导线粘结、电路修补、电子线路引出及射频元件的粘接，也适用于电子显微镜台上的样品粘结。

产品规格

粘度	15 ± 5 Pa.s @ 10 ³ s ⁻¹ ; Cone & plate Rheometer
主剂：硬化剂	50 : 50
比重	1.1 ± 0.1
熟化	25°C x 2-3 hours; or 60°C x 8 minutes ; 或 80°C x 2 minutes , or 100°C x 1 minutes
混合后使用期限	10-15 分钟
产品保存期限	制造后12 个月

1. 混合后搅拌



Photo 1. 主剂与硬化剂混合后，以小型均质分散机搅拌均匀。

2. 网印



Photo 2. 以 120 mesh (48T) 丝网印刷

3. 烘烤



Photo 3. 以 100°C x 20-25 分钟烘烤

4. 热压

90°C x 10 seconds

接着物性

Test	Result	Test Spcification
Volume resistivity	< 1 mΩ·cm	Mitsubishi Chemical Loresta-EP MCP-T360; 4-probe
Peel strength @ 90°	> 0.6 kg/cm	克瑞富拉力试验机 铜箔涂膜厚 20μm 后对另一铜箔面贴合
Thermal resistance	No change in volume resistivity	80°C x 1 hours
Water resistance	No change in volume resistivity	Immersed in water @ 23°C x 1 hour
Moisture absorption	< 0.3%	IPC-TM-650 2.6.2.1

Material Safety Data Sheet

Teamchem Company

Date of issue: June 11, 2009

Product Identity

Trade name: A2 / HA2

1. Identification of the product and of the company.

Product name A2 / HA2
Company name: Teamchem Company
Address: No.14, Lane 276, Yongfeng Rd.,
 Barder City, Taoyuan County, Taiwan, R.O.C. 334
Emergency phone: +886-3375-8654
Preparer: Todd Yeh

2. Composition/information on ingredients

<u>Ingredient Name</u>	<u>CAS Number</u>	<u>Percent</u>
Modified epoxy resin(s)	Trade secret	12.5
Silver Particles	7440-22-4	75
Hardener	Trade secret	12.5

All ingredients comply with applicable rules or orders under TSCA.

Weight percents listed above are within 5% of the actual value.

3. Hazards identification

Emergency Overview:

Liquid

Skin irritant

Potential Health Effects:

INHALATION: may cause irritation

EYE CONTACT: may cause irritation

SKIN CONTACT: may cause irritation

INGESTION: maybe harmful

4. First aid measures

Eye contact:

Rinse eyes with running water for 15 minutes. Consult a doctor.

Skin contact:

Wash promptly exposed areas with soap and water.

Inhalation of aerosol / vapor / dust:

Remove victim to fresh air immediately.

Ingestion or accident:

Get medical attention promptly. If swallowed, seek medical advice immediately

5. Fire fighting measures

Extinguishing media:

Dry chemical, CO₂, foam, water spray

Special advice in case of fire:

Firefighters should wear self-contained breathing apparatus and eye protection in fighting significant fires in which this material is involved

6. Accidental release measures

After spillage, soak it up with rags or paper towels and dispose it according to local regulations.

Avoid breathing vapors and remove ignition sources.

7. Handling and storage

Handling:

Avoid contact with skin and eyes.

Storage:

It should be stored in a cool, dry, well-ventilated location.

8. Exposure controls and personal protection

Personal protective equipment

Respiratory: Industrial canister gas masks
Eye protection: Face shields
Hand, skin and body protection: Impervious clothing, chemical-resistant gloves, apron and impervious boots.

9. Physical and chemical properties

*Flash point: >100°C (Seta flash Closed Cup)
*Viscosity: 10-20 Pa·s at 25°C
*Solubility in water: insoluble

10. Stability and reactivity

Stability:

This product is stable under ambient condition.

Conditions to avoid:

Heat, sunlight.

Materials to avoid:

Acids, alkalis, amines, peroxides, oxidizing agents.

11. Toxicological information

<u>Species</u>	<u>Route</u>	<u>Exposure and Dose</u>
Modified epoxy resin	oral-rat	LD50>4,000 mg/kg
Hardener	oral-rat	LD50>10,000 mg/kg

12. Ecological information

No data

13. Disposal considerations

*Local regulations should be adhered to.

*Disposal of empty containers

14. Transport information

General information: Keep container tightly sealed.
 Load and unload with care.
UN harmful class: None
UN package category: None

15. Regulatory information

Follow all regulations in your country.

Symbol(s) Harmful in contact with skin
 Harmful if swallowed
 Irritating to eyes

Safety-phrase(s) Avoid contact with skin
 Avoid contact with eyes
 In case of contact with eyes, rinses immediately with plenty of
 water and seek medical advice.
 Take off immediately all contaminated clothing
 Wear suitable glove
 In case of insufficient ventilation, wear suitable respiratory
 equipment
 Wear eye / face protection

16. Other information

Product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with legal regulation.

The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should therefore not be construed as guaranteeing specific properties.