

## Atom Adhesives AA-DUCT 905 Epoxy Adhesive

Category : Polymer , Thermoset , Epoxy , Epoxy Adhesive

### Material Notes:

AA-DUCT 905 is a single component epoxy, formulated with pure silver powder combined with organic binders and solvents to produce electrically conductive paths, films or patterns over non-conductive substrates. AA-DUCT 905 shows slight settling when stored for a long period of time, no caking and will re disperse to a smooth homogeneous state. AA-DUCT 905 formulation produces electrically conductive paths on a wide variety of surfaces including plastics, rubber, cloth, thermoplastic, paper, wood and many others. AA-DUCT 905 is designed for use in diversified applications such as microwave EMI & RFI shielding, in the assembly or repair of printed circuit boards, wave-guides, electronic modules, flat cable, static shielding, connections and circuitry. This epoxy is designed for screening and micro product adhesion applications with the best dispensing capabilities of up to 30 gauge / 0.01" / 0.255mm. Appearance: SilverCure Type: Heat cure Benefits: High strength Perfect bond EMI&RFI shielding Wave guides The best dispensing capabilities of up to 30 gauge/0.01"/0.255mm Substrates: Integrated circuits, aluminum, copper, magnesium, steel, bronze, nickel, kovar, ceramic, glass, phenolic and G-10 epoxy glass boards. Catalyst: Anhydride Information provided by Atom Adhesives

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Atom-Adhesives-AA-DUCT-905-Epoxy-Adhesive.php](http://www.lookpolymers.com/polymer_Atom-Adhesives-AA-DUCT-905-Epoxy-Adhesive.php)

| Physical Properties | Metric    | English   | Comments |
|---------------------|-----------|-----------|----------|
| Specific Gravity    | 2.35 g/cc | 2.35 g/cc | Uncured  |
| Viscosity           | 6800 cP   | 6800 cP   | Uncured  |

| Mechanical Properties | Metric   | English  | Comments |
|-----------------------|----------|----------|----------|
| Hardness, Shore D     | 83       | 83       |          |
| Tensile Strength      | 10.3 MPa | 1500 psi | Adhesion |
| Modulus of Elasticity | 4.14 GPa | 600 ksi  |          |
| Poissons Ratio        | 0.35     | 0.35     |          |
| Shear Strength        | 13.8 MPa | 2000 psi | Lap      |

| Thermal Properties               | Metric   | English  | Comments |
|----------------------------------|--|--|----------|
| CTE, linear                      | 3.00 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ | 1.67 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$ |          |
| Specific Heat Capacity           | 0.300 J/g- $^\circ\text{C}$                    | 0.0717 BTU/lb- $^\circ\text{F}$                  |          |
| Thermal Conductivity             | 0.602 W/m-K                                    | 4.18 BTU-in/hr-ft $^2$ - $^\circ\text{F}$        |          |
| Maximum Service Temperature, Air | 170 $^\circ\text{C}$                           | 338 $^\circ\text{F}$                             |          |
| Minimum Service Temperature, Air | -45.0 $^\circ\text{C}$                         | -49.0 $^\circ\text{F}$                           |          |

| Component Elements Properties | Metric    | English   | Comments |
|-------------------------------|-----------|-----------|----------|
| Silver, Ag                    | 70 - 72 % | 70 - 72 % |          |

| Electrical Properties          | Metric                | English               | Comments |
|--------------------------------|-----------------------|-----------------------|----------|
| Volume Resistivity             | <= 0.0010 ohm-cm      | <= 0.0010 ohm-cm      |          |
| Surface Resistivity per Square | 1.00e+7 - 1.20e+8 ohm | 1.00e+7 - 1.20e+8 ohm |          |

| Processing Properties | Metric              | English             | Comments |
|-----------------------|---------------------|---------------------|----------|
| Cure Time             | 5.00 min            | 0.0833 hour         |          |
|                       | @Temperature 175 °C | @Temperature 347 °F |          |
|                       | 10.0 min            | 0.167 hour          |          |
|                       | @Temperature 150 °C | @Temperature 302 °F |          |
|                       | 15.0 min            | 0.250 hour          |          |
|                       | @Temperature 120 °C | @Temperature 248 °F |          |
| Pot Life              | 6.00 min            | 6.00 min            | uncured  |
| Shelf Life            | 6.00 Month          | 6.00 Month          | uncured  |

## Contact Songhan Plastic Technology Co.,Ltd.

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