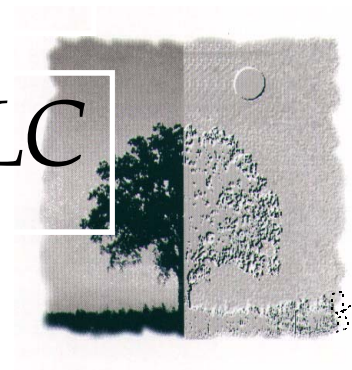


# RESIN TECHNOLOGY GROUP, LLC

## PRODUCT DATA SHEET



### DEVELOPMENTAL PRODUCT One-Component Silver Epoxy

#### EPOXY 921-NSX

#### Delay Cure Electrically Conductive Epoxy Adhesive For HGA

##### Description

Epoxy 921-NSX is a delay cure cationic epoxy based adhesive system designed for HGA bond applications. The cured material has good dimensional stability, excellent resistance to outgassing and resistance to water, weather, oxygen and ozone, most petroleum products, mild acids and alkalis and many other chemicals. This product has been designed to prevent "crowning".

Epoxy 921-NSX is designed to provide a low temperature snap cure after a short exposure to UV light. Product is applied to substrate, UV exposed, parts are mated and then UV cured. Although this product can accommodate a wide variety of UV exposure time and UV intensity this particular system was tested using the following parameters:

1. Product was applied to slider and UV exposed for 0.5 seconds with a wand system generating 0.2 watts/cm<sup>2</sup> of UVA radiation.(see note #1)
2. Suspension was mated to slider within 2 minutes after UV exposure.
3. Exposed product is UV cured for 7 seconds using a 0.2 watt/cm<sup>2</sup> UV light source.
4. Unexposed product will cure in 1-2 hours at room temperature.

##### Developmental Product

This data was generated on laboratory material and should not be used for specification purposes. The Developmental Product name and designation may change upon commercialization.

##### Physical Properties

Color:	Dark Grey
Specific Gravity:	1.15 to 1.20
Operating Temperature Range, °C:	-40 to 130

##### Handling Characteristics

Viscosity @ 25°, cps,	
SSA#14 @ 1 rpm:	340,000
Thixotropic Index, 1/10:	3.6
Work Life:	6 months @ RT
Hardness, Shore D:	40
Maximum Particle Size of Silver:	12 Microns
Electrical Conductivity, ohm-cm:	<0.001
	(X Axis only)
Modulus, psi:	15,000
Coefficient of Expansion, cm/cm/ °C:	0.000064

##### Storage:

Store below 25°C out of sunlight and in original unopened containers. Refer to packaging specific quote for shelf life information.

Note#1: Although the use of high powered UV lights allow for faster process time, low energy lights provide a greater degree of forgiveness to the process. The initial UV light exposure designed to activate the long-term room temperature cure can be accomplished using as little as 0.002 watts/cm<sup>2</sup> UVA light intensity for 60 seconds.