



**Applied Ink Solutions**

A DIVISION OF MICROCHEM

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## TECHNICAL DATA SHEET

### EP-452 TWO-PART THERMALLY CONDUCTIVE EPOXY ADHESIVE

EP-452 is a **two component, 100% solids**, thermally conductive epoxy adhesive which offers **high thermal conductivity and electrical insulation.**

#### ADVANTAGES

- No silicone contamination
- Long pot life after mixing
- Easy 6:4 mix ratio, by weight
- High temperature resistance
- Good solvent resistance

#### TYPICAL PROPERTIES

Appearance - Part A	Thick white to gray paste
Part B	Thick off-white paste
Mix Ratio	6 parts A (by weight) to 4 parts B
Viscosity #7 spindle, 10 rpm	20,000 cps (after mixing)
Gel Time (25°C, 25 gm scale)	>18 hours
Pot Life (25°C)	>6 hours
Cure Schedule	10 minutes at 150°C, or 48 hours at room temperature
Shelf Life (unmixed)	6 months in unopened container

#### PHYSICAL PROPERTIES AFTER CURE

Thermal Conductivity	8 BTU-in/hr-ft <sup>2</sup> -°F (1.2 w/m-°k)
Volume Resistivity	1 x 10 <sup>13</sup> Ω-cm
Breakdown Voltage (14 mil film)	>200 VAC/mil

For optimal thermal transfer properties, potting compounds should be deaerated under vacuum after mixing to remove entrapped air.

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Guidelines are intended to provide a starting point for evaluation.

Applied Ink Solutions recognizes that each customer's manufacturing process is unique, and we are available to provide technical assistance to resolve your processing issues. Call us to discuss your application in more detail.

The properties are accurate to the best of our knowledge and Applied Ink Solutions makes no guarantees for customer specifications established in applications where this product is used. Customer assumes responsibility for determining fitness of use in their particular application.

## Cleaning Guidelines

Clean with common solvents immediately after use.

## Health & Safety

Products manufactured by Applied Ink Solutions are intended for use in an industrial environment by trained personnel. Please follow proper health/safety processes regarding storage, handling and processing of the products.