

## EpoPro<sup>®</sup> 212A/9214B

### LOW VISCOSITY EPOXY SYSTEM FOR PRESS MOLDING

EpoPro<sup>®</sup> 212A/9214B is a two part epoxy system that cures rapidly at room temperature into a rigid, chemical resistant polymer with a very good Heat Deflection Temperature and excellent dimensional stability. The system is excellent for wetting out glass fibers and other reinforcements and cure through in thin sections. It is 100% solids system, with no Volatile Organic Content and produce a cure polymer that is transparent.

The EpoPro 212A/9214B system is available in many standard colors upon request. Many other custom variations are also available to meet your requirements. Please contact us to discuss your application if you'd like to receive samples of a custom color or to discuss the development of a custom variant that would be suitable for your application.

#### **SUGGESTED APPLICATIONS:**

- Laminating or press molding reinforced parts
- Patterns, drill jigs, assembly fixtures, Keller models, body cubes, draw dies, master die models, spotting racks, and many other tooling applications
- Bonding any repairing wood, composites, and many other materials
- Impregnating or sealing coils and paper wound electronic components

<b>HANDLING PROPERTIES</b>	<b>VALUE</b>	<b>TEST METHOD</b>
<u>EpoPro 212A (resin)</u>		
Visual Appearance	Clear to light yellow liquid	
Density, Part A	1.15 g/cm <sup>3</sup>	ASTM E-201
Viscosity, Part A, @ 25°C	600 cps	ASTM D-2393
Flash Point	78°C	ASTM D-92
<u>EpoPro 9214B (hardener)</u>		
Visual Appearance	Clear yellow Liquid	
Density,	1.04 g/cm <sup>3</sup>	ASTM E-201
Viscosity, Part B, @ 25°C	100 cps	ASTM D-2393
Flash Point	>100°C	ASTM D-92
Mix Ratio by weight and volume:	100A:17B by weight or 5A:1B by volume	
Pot life, 150 grams mass	12 - 18 minutes	
Mixed Viscosity	300 – 500 cps	ASTM D-2393
<u>Cure Schedules:</u> 24 hours @ 25°C for initial cure (full properties will develop over approximately 7 days at room temperature) <b>or</b> heat cure for 2- 4 hours at 65°C. (Note: allowing the material to gel at room temperature for at least 1 - 2 hours prior to heat curing will reduce shrinkage and increase bond strengths.)		

<b>PHYSICAL PROPERTIES</b> (Tested at 25C unless otherwise noted – cured 7 days @ 25°C)		
<b>(Neat resin properties)</b>		<u>TEST METHOD</u>
Appearance	Transparent, light yellow	Visual
Cured Density, g/ml	1.13	
Hardness, Shore D At 25°C (77°F)	89D	ASTM D-2240
Hardness, Shore D At 65°C (150°F)	87D	
Hardness, Shore D At 93°C (200°F)	78D	
Coefficient of Thermal Expansion (CTE):		ASTM E-831
0 – 100C (ppm/°C)	68.4	
Glass Transition Temperature (Tg)	172°F	ASTM D-648
Heat Deflection Temperature	>180°F	
<b>Properties of Glass cloth laminate (7 plies, #1500 fiberglass cloth)</b>		
Tensile Strength, psi	25,300	ASTM D-638
Flexural Strength, psi	30,200	ASTM D-790
Flexural Modulus, psi	1,580,000	ASTM D-790
Edgewise Compressive Strength	28,800	ASTM D-695
Coefficient of Thermal Expansion (CTE):		ASTM E-831
0 – 100C (ppm/°C)	39.6	

*Note : Data above generated in a laboratory setting and may not be suitable for specification purposes. Please contact us for assistance in writing specification for this system.*

## **PROCESSING AND APPLICATION INSTRUCTIONS :**

To use, weigh Part A and Part B into a clean mixing container. Mixing containers should preferably be made of polyethylene, glass, or non-corroding metal. (Stainless steel, aluminum, etc.). Always use weighing equipment having accuracy that is  $\pm 1\%$  or less of the smallest quantity that you will be weighing. Blend Part A & B thoroughly using a spatula or stirring stick for at least 2 minutes using a kneading motion. Scrape the bottom and sides of the mixing container carefully and frequently to produce a uniform mixture.

Apply to clean, dry surfaces. For best adhesion, abrade the surface with a wire brush, scouring pad, steel wool or coarse sand paper. After abrasion, clean the surface of any loose material and degrease with solvent or detergent to remove any contaminants. The material may then be applied with any suitable application method include brushes, spatulas, trowels, etc.

## **PACKAGING AVAILABLE:**

This product is available in a wide range of sizes including gallons, 5-gallons. and drums.

Please call use with any special packaging requests or for information on custom kitting.

# Product Datasheet



## **STORAGE GUIDELINES:**

Store these materials in a clean, cool and dry environment in their tightly closed original containers. Protect from extended exposure to temperatures below 15°C (59°F). Crystallization may occur if the material is exposed to cold for extended periods. If this occurs, heat the entire container for 4 hours at 70°C to re-liquefy the material. Allow to cool to ambient temperature prior to using. Also protect the EpoPro 104A&B from exposure to moisture or high humidity. Tightly re-seal containers after use. If the recommended storage conditions are observed the products will have a minimum shelf-life of 12 months from the date of shipment.

## **HANDLING PRECAUTIONS:**

Mandatory and recommended industrial hygiene procedures should be followed whenever these products are being handled and processed. For additional information please consult the corresponding material safety data sheets.

## **PERSONAL HYGIENE:**

### **EpoPro 212A**

**WARNING! COMBUSTIBLE.** Causes severe eye irritation. Causes skin irritation and possible allergic reaction. Harmful if inhaled. Harmful if swallowed. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling

### **EpoPro 9214B**

**WARNING!** May cause eye & skin irritation. Prolonged or repeated skin contact or inhalation of vapors may cause allergic skin or respiratory reactions. Harmful if inhaled or swallowed. Avoid contact with eyes, skin, or clothing. Wear eye protection and impervious gloves when handling. Wash thoroughly after handling. Avoid breathing vapor or mist. Keep containers closed when not in use. Use only with adequate ventilation. Do not take internally.

## **FIRST AID**

In case of contact:

**Skin** – Immediately wash skin thoroughly with mild soap and water. Remove contaminated clothing and wash before reuse. Destroy contaminated shoes and other articles made of leather.

**Eyes** – Immediately flush eyes with plenty of water for 15 minutes and get prompt medical attention.

**Inhalation** - Remove person to fresh air. Administer oxygen or artificial respiration if necessary. Call a physician.

**Ingestion** - Do not induce vomiting. Dilute with plenty of water and contact physician immediately. Never give anything by mouth to an unconscious person.

## **DISCLAIMER:**

**IMPORTANT:** The following supercedes Buyer's documents. **SELLER / MANUFACTURER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller / Manufacturer be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict liability, tort or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results presented are based on controlled or laboratory work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended

## **Specialty Polymers & Services, Inc. (SP&S)**

**27822 Fremont Court**

**Valencia, CA 91355**

**[www.spolymers.com](http://www.spolymers.com)**

**Tel: 661-294-1790**

**Fax : 661-294-0640**

**[info@spolymers.com](mailto:info@spolymers.com)**