

EpoPro 631A/B

Low Viscosity, Flexibilized Epoxy Bonding, Coating, & Potting System

EpoPro® 631A/B is a low viscosity epoxy system which is 100% solids and contains a high performance, fully reactive flexibilizer that imparts excellent toughness to the cured polymer. The cure polymer demonstrates excellent performance in applications subject to thermal cycling or thermal shock, vibration, impact, or cyclical fatigue. It also provides excellent moisture and corrosion resistance.

The EpoPro® 631A/B is a multipurpose system that provides exceptional performance in composite bonding and laminating applications. It is also excellent as an adhesive binder for sand or aggregate, as a high peel strength adhesive, as a chemical & impact resistance floor coating and tank lining, and as an electrical encapsulant.

TYPICAL APPLICATIONS

- Tough, moisture & chemical resistant Coatings
- Binder & adhesive for composites, sand & aggregate
- Shock & impact resistant adhesive & encapsulant

HANDLING PROPERTIES

	<u>VALUE</u>	<u>TEST METHOD</u>
<u>EpoPro 631A</u>		
Appearance	Yellow-Amber Liquid	
Gardner Color	≤ 5	ASTM D1544
Density, g/cm ³	1.05	ASTM E-201
Viscosity @ 25°C, cps	1400	ASTM D-2393
Weight per Epoxide, g/eq	245 - 275	ASTM D1652
<u>EpoPro 631B</u>		
Appearance	Clear Amber Liquid	
Gardner Color	≤ 4	ASTM D1544
Density, g/cm ³	0.99 – 1.01	ASTM E-201
Viscosity @ 25°C, cps	110	ASTM D-2393
Mix Ratio By Weight	100A:29B	Calculated
Viscosity Mixed @ 25°C, cps	1000	ASTM D-2393
Gel Time @ 25°C, 100g mass	15 minutes	ASTM D-2471
Peak Exotherm, 100g. mass	~ 90C	
Thin Film set time	3 hours	
Recommended Cure Schedules:	24 - 48 hrs. @ 25°C for initial cure. Allow 1-2 weeks for development of full properties or allow to cure overnight and heat cure for 2 hours @ 95C.	

PHYSICAL PROPERTIES

	<u>VALUE</u>	<u>TEST METHOD</u>
Color	Yellow-Amber	Visual
Density, g/cm ³	1.03	ASTM E-201
Shore Hardness	70D-80D	ASTM D-2240
Tensile Strength, psi	>4,000	ASTM D-638
Tensile Elongation at break	30%	ASTM D-638

ELECTRICAL PROPERTIES

	<u>VALUE</u>	<u>TEST METHOD</u>
Volume Resistivity, ohm-cm	2.4×10^{14}	ASTM D-257
Dielectric Constant, 60 Hz	3.9	ASTM D-150
Dissipation Factor, 60 Hz	0.035	ASTM D-150

NOTE : Typical Properties determined using EpoPro 631A/B cured for 14 days @ 25°C. Values are based on laboratory or average production results – not for specification purposes.

SUGGESTED PROCESSING GUIDELINES:

EpoPro 631A/B can be applied by pouring, brushing, injection from a syringe, or by spraying or dipping components into the mixture. It is also suitable for meter-mix dispensing.

When ready to use, weigh the resin and hardener in the recommended ratio as accurately as possible into a clean mixing container. Always use weighing equipment having accuracy in proportion to the amounts being weighted – ideally the accuracy of the scale should be less than 1% of the mass being weighed. Blend by using a spatula or stirring stick for 2-3 minutes using a kneading motion. Scrape the bottom and sides of the mixing container carefully and frequently to produce a uniform mixture. For bubble free parts, vacuum degas the mixture prior to use at 28 inches of mercury or greater. For best adhesion apply to clean, dry surfaces.

STORAGE GUIDELINES:

Store this material in a clean, cool and dry environment in its tightly closed original container. Products may settle during storage and should be thoroughly re-mixed prior to use. Avoid extended exposure to high humidity. Tightly re-seal 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 631A

CAUTION! May cause eye irritation. Prolonged or repeated skin contact may cause irritation, may cause allergic skin reaction. 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.

EpoPro 631B

WARNING! May causes skin and eye irritation. May cause allergic skin and respiratory reactions. Harmful if inhaled or swallowed. Do NOT get in eyes, on skin, or clothing. Wear chemical splash goggles and impervious gloves when handling. Wash skin and clothing thoroughly after handling. Avoid breathing vapor or mist. Use only with adequate ventilation. Keep containers closed when not in use. 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.

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