

EpoPro[®] 297A/B

2 COMPONENT, FLAME RETARDANT EPOXY CASTING SYSTEM

EpoPro[®] 297A/B is a filled epoxy system for thin section casting. This material is a flame retardant formulation which meets the requirements of the Underwriters Laboratories UL 94VE-O. This 2-part epoxy casting will cure at room temperature or the cure may be accelerated with heat. The 297 system is designed to degas easily and is a creamy white color that is easily pigmented to produce a range of opaque shades. The cured polymer is easy to sand and machine and provided good mechanical properties and good chemical and environmental resistance.

The EpoPro 297 system is available in custom colors upon request and is also available with custom viscosities and longer or shorter work-lives or customized cure schedules. Please contact us to discuss your application if you'd like to receive samples of a custom variant that might be suitable for your application.

SUGGESTED APPLICATIONS & BENEFITS:

- Rocker Edge Casting
- Casting of prototypes and other articles for consumer applications
- Meets UL94VE-0 requirements for Flame Retardance
- Easy to machine,

HANDLING PROPERTIES	VALUE	TEST METHOD
<u>EpoPro 297A</u>		
Visual Appearance	White liquid	
Density	1.40 g/cm ³	ASTM E-201
Viscosity, Part A, @ 25°C	3000 - 5000	ASTM D-2393
Flash Point	>100°C	ASTM D-92
<u>EpoPro 109B</u>		
Visual Appearance	Light yellow to amber liquid	
Density	1.02 g/cm ³	ASTM E-201
Viscosity, Part B, @ 25°C	200 cP	ASTM D-2393
Flash Point	>100°C	ASTM D-92
<u>Mixed Properties</u>		
Mixed Viscosity	1000 - 2000 cP	
Mix Ratio (part by weight)	100A: 11B	
Shelf-life	at least 12 months @ room temperature (~ 25°C)	
Pot life (100 grams) @ 25°C	22 minutes	
Cure Schedules:	24 hours @ 25°C or 2 - 4 hours @ 65°C*	

*Note: many other cure schedules are possible. Please contact us for assistance if you'd like to use an alternate cure schedule.

PHYSICAL PROPERTIES (Tested at 25C unless otherwise noted – cured 2 hours @ 65C)

		<u>TEST METHOD</u>
Appearance	White solid	Visual
Hardness, Shore D At 25°C	80D	ASTM D-2240
Tensile Strength at break	3200 psi	ASTM D-638
Tensile Elongation	5%	ASTM D-638
Glass Transition Temperature	50 °C	<small>Perkins Elmer Application case # 20</small> ASTM E-381
Coefficient of Thermal Expansion	41 ppm / °C	
Thermal Conductivity	0.42 W/mK	ASTM D-2214

NOTE : Values are based on laboratory or average production results – not for specification purposes.

PROCESSING AND APPLICATION INSTRUCTIONS :

Check the EpoPro 297A for settling prior to use. Stir to homogenize the 297A in its original container prior to use. When it is homogeneous, weigh Part A and Part B 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. Blend by using a spatula or stirring stick for 1-2 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 bonding, roughen the surface to be bonded using sandpaper, a wire brush, sand-blasting or similar means. Be sure to clean and degrease the surface after roughening.

PACKAGING AVIALABLE:

5-gallon pails. Other sizes may be available by request. Please contact us to discuss your needs if a smaller or larger package size would be of interest.

STORAGE GUIDELINES:

Store the EpoPro 297A&B in a clean, cool and dry environment in their tightly closed original containers. Protect from extended exposure to temperatures below 15°C (59°F) to prevent crystallization. If crystallization occurs, heat the entire container for 4-8 hours at 60°C to re-liquefy the material. Also protect from exposure to extended 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 297A

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.

EpoPro 109B

WARNING! Causes eye irritation. May cause skin irritation and 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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