

Product Datasheet



Preliminary – Please note some data may be estimated or based on testing of similar formulations.

EpoPro® 2995A/B

Toughened High Performance Epoxy Adhesive

EpoPro® 2995A/B is a room temperature curing adhesive, sealant, and coating. It provides a tough, impact and shock resistant bond to a wide variety of materials. The system has controlled flow with good sag and run resistance in thicknesses up to 1/4" thick and is excellent for filling gaps and holes of similar sizes. The cured adhesive has high shear and peel strengths and resist most chemicals, weathering, and other stresses. EpoPro® 2995A/B is excellent for bonding SMC, composites, metals, glass, concrete, and many rigid plastics.

EpoPro® 2995A/B is available in a standard black color and can also be provided uncolored as a neutral beige, or in custom colors by request. Other custom variants, such as thicker or thinner version or faster setting varieties are also by request. Please contact SP&S for assistance with such requests.

BENEFITS

- Non-sagging/Non-running, excellent gap filling up to 1/4" thickness
- High Strength Adhesive
- Conforms to A-A-3053 type II, Class A

HANDLING PROPERTIES	VALUE	TEST METHOD
<u>EpoPro® 2995A</u>		
Color	White to off-white	Visual
Density	1.40 g/cm ³	ASTM E-201
Viscosity, Part A, @ 25°C	Paste	ASTM D-2393
<u>EpoPro® 115B</u>		
Color	Black	Visual
Density	1.40 g/cm ³	ASTM E-201
Viscosity, Part B, @ 25°C	Paste	ASTM D-2393
<u>Mixed Properties</u>		
Mix Ratio	1A:1B by weight (1A:1B by volume)	Calculated
Color	Beige	Visual
Density	1.45 g/cm ³	ASTM D-792
Mixed Viscosity	Semi-Paste	ASTM D-2393
Pot life (120 grams) @ 25°C	60-90 minutes	ASTM D-2393
Time to Handling Strength	6-8 hrs. at 25°C or 2 hours at 40°C or 10 min. @ 100°C	
Shelf-life	1 years from date of shipment at room temperature (~ 25°C)	
Suggested cure times	16 - 24 hours at 25°C or 2 hours at 65°C or 30 minutes at 100°C*	
* Note: many other cure schedules are possible. Please contact us for assistance if you'd like to use an alternate cure schedule.		

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PHYSICAL PROPERTIES		VALUE	TEST METHOD
Lap Shear Strengths			ASTM D-1002
Effect of Temperature on Lap Shear Strength (Al-Al bonds):			
<u>Test Temperature</u>	<u>Cured 5 days @ 25°C</u>	<u>Cured 20 minutes @ 100°C</u>	
-40°C	2800 psi	2850 psi	
25°C	2950 psi	3000 psi	
40°C	2800 psi	2900 psi	
60°C	1700 psi	2200 psi	
70°C	950 psi	1080 psi	
100°C	825 psi	870 psi	
Effect of Chemical Exposure (90 day immersion, unless noted differently):			
	<u>Chemical</u>		
	Gasoline	2200 psi	
	Xylene	1800 psi	
	Ethyl Acetate (30 day immersion)	1700 psi	
	Lubricating Oil – HD30	2800 psi	
	Mineral Spirits	1700 psi	
	Water at 25°C	1650 psi	
	Water at 90°C	1500 psi	
Effect of Environmental Aging/Tropical Exposure (40C/104F & 92% relative Humidity):			
<u>Test Temperature</u>	<u>Tropical Aging*</u>	<u>Heat Aging (at 70°C)</u>	
Initial Value	2400 psi	2500 psi	
10 days	2280 psi	3000 psi	
30 days	2100 psi	2900 psi	
60 days	2080 psi	3120 psi	
90 days	2050 psi	3250 psi	
Bond strength with various Substrates:			
<u>Substrate</u>	<u>Substrate Thickness</u>		
Carbon Steel	1 mm	2200 psi	
Stainless Steel	1 mm	1800 psi	
Galvanized Steel	1.5 mm	1700 psi	
Copper	1.5 mm	2400 psi	
Brass	1.5 mm	1800 psi	
Sheet Molding Compound (SMC)	4 mm	1650 psi	
Low Profile SMC	4 mm	1700 psi	
Glass Transition Temperature (Tg)		81°C	ASTM D-4065
Roller Peel Test		20 ppi	ISO 4578

NOTE: Typical Properties determined using EpoPro® 2995A/B cured 5 days at 25°C - unless another cure is stated. Values are based on laboratory or average production results – not for specification purposes.

SUGGESTED PROCESSING GUIDELINES

EpoPro® 2995A/B can be applied by a roller, squeegee, knife, or spatula. It is also suitable for meter-mix dispensing and can be supplied in dual syringes cartridges for use with static mixing nozzles.

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For manual mixing, 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. Always apply the adhesive to clean, dry surfaces.

For best bond strength, roughen surface to be bonded with wire brush, sandblasting, etc. After roughening, clean and dry surface and remove any loose material prior to bonding. Optimal bond strengths are typically achieved with an adhesive bondline thickness of 2 – 5 mils, but larger gaps and thicker bondlines are possible with this adhesive without major loss of mechanical strength. If bond-line thickness control is important, this adhesive can be supplied with spacer beads that ensure the designed minimum bond-line thickness is achieved. Please contact us for more information if spacer beads would be of interest for your applications.

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 24 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® 2995A

WARNING! May cause eye & skin irritation and possible allergic reaction. Harmful if inhaled. Harmful if swallowed.

EpoPro® 2995B

WARNING! May cause eye & skin irritation and possible allergic reaction. Harmful if inhaled. Harmful if swallowed.

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.

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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. 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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