Product Datasheet

EpoPro® 115A/B

Toughened High Performance Epoxy Adhesive

EpoPro® 115A/B is a room temperature curing paste adhesive that provides a tough, impact and shock resistant bond to a wide variety of materials. It is sag and run resistant in thicknesses up to 10mm (3/8") and is excellent for filling gaps and holes of similar size. The cured adhesive has high shear and peel strength and resist most chemicals, weathering, and other stresses. EpoPro® 115A/B is excellent for bonding SMC, composites, metals, glass, and many rigid plastics.

EpoPro® 115A/B is available in a neutral beige color that does not read through most thin bond-lines. It is also available in custom colors by request. Other custom variants, such as thicker or thinner version or faster setting varieties are also by request. Please contact

BENEFITS

- Non-sagging/Non-running, excellent gap filling up to 10mm thickness
- High Strength Adhesive
- Conforms to A-A-3053 type II, Class A

HANDLING PROPERTIES	VALUE	TEST METHOD
EpoPro® 115A		
Color	beige	Visual
Density	1.40 g/cm³	ASTM E-201
Viscosity, Part A, @ 25ºC	Paste	ASTM D-2393
EpoPro® 115B		
Color	Beige	Visual
Density	1.40 g/cm³	ASTM E-201
Viscosity, Part B, @ 25ºC	Paste	ASTM D-2393
Mixed Properties		
Mix Ratio	1A:1B by weight (1A:1B by volume)	Calculated
Color	Beige	Visual
Density	1.45 g/cm³	ASTM D-792
Mixed Viscosity	Thixotropic Paste	ASTM D-2393
Pot life (120 grams) @ 25ºC	30-40 minutes	ASTM D-2393
Time to Handling Strength	4 hrs @ 25ºC **or** 1 hour @ 40ºC **or** 6 min. @ 100ºC	
Shelf-life	at least 2 years @ room temperature (~ 25ºC)	
Suggested cure times	12 - 24 hours @ 25ºC **or** 60 minutes at 65ºC **or** 20 minutes at 100ºC*	

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

PHYSICAL PROPERTIES	VALUE	TEST METHOD
Lap Shear Strengths		ASTM D-1002

Effect of Temperature on Lap Shear Strength (Al-Al bonds):

Test Temperature	Cured 5 days @ 25ºC	Cured 20 minutes @ 100ºC
-40ºC	3200 psi	3250 psi
25ºC	3250 psi	3300 psi
40ºC	2950 psi	2900 psi
60ºC	1900 psi	2400 psi
70ºC	1050 psi	1100 psi
100ºC	850 psi	870 psi

Effect of Chemical Exposure (90 day immersion, unless noted differently):

Chemical	
Gasoline	2300 psi
Xylene	1900 psi
Ethyl Acetate (30 day immersion)	1800 psi
Lubricating Oil – HD30	2900 psi
Mineral Spirits	1800 psi
Water @ 25ºC	1750 psi
Water @ 90ºC	1700 psi

Effect of Environmental AgingTropical Exposure (40C/104F & 92% relative Humidity):

Test Temperature	Tropical Aging*	Heat Aging (at 70ºC)
Initial Value	2600 psi	2600 psi
10 days	2480 psi	3100 psi
30 days	2300 psi	3000 psi
60 days	2200 psi	3220 psi
90 days	2250 psi	3350 psi

Bond strength with various Substrates:

Substrate	Substrate Thickness	
Carbon Steel	1 mm	2300 psi
Stainless Steel	1 mm	1900 psi
Galvanized Steel	1.5 mm	1800 psi
Copper	1.5 mm	2900 psi
Brass	1.5 mm	1800 psi
Sheet Molding Compound (SMC)	4 mm	1750 psi
Low Profile SMC	4 mm	1850 psi

Glass Transition Temperature (Tg)	83ºC	ASTM D-4065
Roller Peel Test	25 ppi	ISO 4578

NOTE: Typical Properties determined using EpoPro® 115A/B cured 5 days @ 25ºC - unless otherwise stated. Values are based on laboratory or average production results – not for specification purposes.

SUGGESTED PROCESSING GUIDELINES

EpoPro® 115A/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.

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, sand-blasting, etc. After roughening, clean and dry surface and remove and 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® 115A
WARNING! May cause eye & skin irritation and possible allergic reaction. Harmful if inhaled. Harmful if swallowed.

EpoPro® 115B
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.
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

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