

EpoPro 8715A/B



LOW DENSITY EPOXY POTTING & ENCAPSULATING SYSTEM

EpoPro 8715 A/B is a low density epoxy potting and encapsulating system designed for stress-sensitive components and applications where weight savings is desirable. This system provides excellent dielectric properties and good mechanical properties in an easy to use material. The cured EpoPro 8715A/B has a reduced density compared to conventional potting systems while maintaining excellent properties and good heat and environmental resistance expected of epoxy insulating systems.

Custom colored versions of this system and alternate hardeners designed to achieve faster or slower cures than the standard EpoPro 8715A/B system are available on request. Specialty Hardeners are also available that provide exceptional heat or chemical resistant or meet other special requirements. Please contact us to discuss your application if you think such a variation might be needed for your application.

TYPICAL APPLICATIONS

- Electronic Modulus
- Sensors
- Inductive Components
- Pressure-sensitive devices
- Aerospace electronics

HANDLING PROPERTIES

	<u>VALUE</u>	<u>TEST METHOD</u>
Density Mixed, g/cm ³	0.8 – 0.85	ASTM E-201
Viscosity part A 25°C, cps	27,000	ASTM D-2393
Viscosity part B 25°C, cps	300	ASTM D-2393
Viscosity Mixed @ 25°C, cps	4,650	ASTM D-2393
Mix Ratio By Weight	100A:35B	Calculated
Mix Ratio By Volume	100A:26B	Calculated
Gel Time @ 25°C, 100g mass	90 minutes	ASTM D-2471
Recommended Cure Schedules:	24 - 48 hrs. @ 25°C or allow to set for 2 hrs @ 25°C then post cure for 4 hrs @ 65°C	

PHYSICAL PROPERTIES

	<u>VALUE</u>	<u>TEST METHOD</u>
Color	Black* (*custom colors available)	Visual
Shore D Hardness	76	ASTM D-2240
Tensile Strength, psi	3,200	ASTM D-638
Tensile Elongation at break	15%	ASTM D-638
Volume Shrinkage	0.25%	ASTM D-792
Glass Transition Temperature (T _g)	55°C	
Thermal Coefficient of Expansion	52 ppm/°C	ASTM E-381
Thermal Conductivity, W/mK	0.41	ASTM D-2214
Water Absorption, % by weight		ASTM D-570

After soaking for 24 hrs @ 25°C	0.05%	
Flame Retardance Rating	UL 94 HB	UL 94
Max Suggested Use Temperature	130°C	EIC 294

ELECTRICAL PROPERTIES

	<u>VALUE</u>	<u>TEST METHOD</u>
Surface Resistivity @ 25°C, ohm-cm	6.5×10^{11}	ASTM D-257
Volume Resistivity @ 25°C, ohm-cm	3.6×10^{14}	ASTM D-257
Dielectric Constant @ 25°C, 60 Hz/1MHz	3.2 / 2.9	ASTM D-150
Dissipation Factor @ 25°C, 60 Hz/1MHz	0.011/0.24	ASTM D-150
Dielectric Strength, volts/mil	370	ASTM D-149

NOTE : Typical Properties determined using EpoPro 8715A/B cured for 24 hours @ 25°C + 4 hours @ 65°C. Values are based on laboratory or average production results – not for specification purposes.

SUGGESTED PROCESSING GUIDELINES:

Prior to use the container of EpoPro 8715A should be thoroughly re-mixed as it may settle or separate during storage or shipment. Once the 8715A is thoroughly homogenized it is ready to be mixed with the 8715B. To use 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 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 best electrical, mechanical, and chemical resistance properties, de-air the mixed material under vacuum. Once de-aired the EpoPro 8715A/B can be poured or dispensed into the component to be potted or encapsulated. Allow to cure at room temperature for 24-48 hours or allow to set at 25°C for about 2 hours and then heat cure at 65°C cure for 4 hours.

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 8715A

WARNING! Causes skin & eye irritation. Prolonged or repeated skin contact may cause allergic skin reaction. 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. **Notice! Overexposure may cause kidney damage and damage to central nervous system.**

EpoPro 8715B

DANGER! CORROSIVE - Causes skin and eye burns. Causes respiratory irritation. May cause allergic skin reaction. 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. **Notice! Overexposure may cause kidney and liver damage.**

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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