

EpoPro[®] 261A/B/C

3 PART FOAMING EPOXY POTTING AND CASTING FOAM

EpoPro[®] 261A/B/C is a three part epoxy system that cures at room temperature or with heat into a strong, insulating foam with good environmental and chemical resistance. The system demonstrates excellent adhesion to most materials including metals, glass, and many plastics.

The density of the foam can be adjusted by varying the amount of the EpoPro 261C additive used in the mixture. Higher levels will increase the foam level and thus lower the density and lower levels of the 261C will reduce the foam level and increase the cured density.

The EpoPro 261A/B/C system is available in many standard and custom colors and the viscosity and flow properties can be factory adjusted to suit your application process. Please contact us to discuss your application if you'd like to receive samples of a custom color or to discuss the development of a custom variant that would be suitable for your application.

SUGGESTED APPLICATIONS:

- Large volume potting or encapsulation
- Pressure sensitive Device Insulation
- Weight restricted components or components sensitive to exotherm during epoxy curing

HANDLING PROPERTIES	VALUE	TEST METHOD
<u>EpoPro 261A (resin)</u>		
Visual Appearance	Off-white liquid	
Density, Part A	1.70 g/cm ³	ASTM E-201
Viscosity, Part A, @ 25°C	22,000 cps	ASTM D-2393
Flash Point	>135°C	ASTM D-92
<u>EpoPro 261B (hardener)</u>		
Visual Appearance	Light yellow Liquid	
Density,	1.01 g/cm ³	ASTM E-201
Viscosity, Part B, @ 25°C	350 cps	ASTM D-2393
Flash Point	>93°C	ASTM D-92
<u>EpoPro 261C (foaming additive)</u>		
Visual Appearance	Light Blue Liquid	
Density,	1.00 g/cm ³	ASTM E-201
Viscosity, Part B, @ 25°C	36 cps	ASTM D-2393
Flash Point	>74°C (>165°F)	ASTM D-92
Mix Ratio (part by weight)	100A:10B:1C	
Viscosity Mixed @ 25°C	15,000 cp	
Gel time, 200 grams	@ 25C: 65 minutes	
Suggested Cure Conditions: 24 hours @ room temperature or allow to gel for 1-2 hours at room temperature then heat cure for 4 hours @ 65C.		

PHYSICAL PROPERTIES (Tested at 25C unless otherwise noted)		<u>TEST METHOD</u>
Appearance	Off-White Foam	Visual
Density	0.35 ± 0.05 g/ml or 22 ± 3 lbs/ft ³	ASTM D792
Glass Transition Temperature (Tg)	40°C	ASTM D-648
Coefficient of Thermal Expansion (CTE):	47 ppm / °C	ASTM E-831
Moisture absorption (24 hours immersion @ 25C - % weight gain)	0.25%	ASTM D-570
Thermal Conductivity	8.0 x 10 ⁻⁴ cal/cm-sec-°C	ASTM F-433
Dielectric Constant @ 25°C & 60 Hz	2.70	ASTM D-150
Dissipation Factor @ 25°C & 60 Hz	0.05	ASTM D-150

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

SUGGESTED PROCESSING GUIDELINES:

To use, weigh Part A, Part B, & Part C in the ratio suggested into a clean mixing container. Mixing containers should preferably be made of polypropylene, polyethylene, glass, or non-corroding metal (Stainless steel, aluminum, etc.). Always use weighing equipment having accuracy that is ±1% or less of the smallest quantity that you will be weighing. Blend Part A, B, & C thoroughly using a spatula or stirring stick for at least 2-3 minutes using a kneading motion. Scrape the bottom and sides of the mixing container carefully and frequently to produce a uniform mixture.

Apply by pouring or dispensing into your components. For best adhesion, apply to clean dry surfaces only. If improved adhesion is desired, lightly abrade the surface to be bonded with a scouring pad, steel wool or fine sand paper. After abrasion, clean the surface of any loose material and degrease with solvent or detergent to remove any contaminants.

For some applications it may be easier to handle a 2 component system. If this is desirable it is possible to pre-mix the 261A & C and if maintained at 15 - 30°C this mixture will be stable for up to 6 months at room temperature. The 261A+C premix would then be mixed with the 261B as needed to initiate foaming and curing. If desired, SP&S can supply the 261A & 261C premixed at whatever levels you specify. Please contact us if you want to discuss this arrangement.

STORAGE GUIDELINES:

Store these materials in a clean, cool and dry environment in their tightly closed original containers. Protect from extended exposure to temperatures below 15°C (59°F). Crystallization may occur if the material is exposed to cold for extend periods. If this occurs, heat the entire container of 261A or 261B for 4 hours at 60°C to re-liquefy the material. Allow to cool to ambient temperature and re-mix prior to using. 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.

SAFETY & PERSONAL HYGIENE:

EpoPro 261A

CAUTION! Causes skin and eye irritation. May cause allergic skin reaction. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Notice! Contains crystalline silica. Breathing dust may cause cancer and delayed lung injury

EpoPro 261B

DANGER! Corrosive-Causes eye burns and skin irritation. Do not get in eyes. Avoid contact with skin and clothing. Avoid breathing vapor and mist. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

EpoPro 261C

COMBUSTIBLE! In accord with good industrial practice, handle with due care. Keep away from heat and flame. Use normal industrial hygiene practices. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

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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