

Ultralane[®] 743A/B

SHORE 35A, OPTICALLY CLEAR, CASTING SYSTEM

Ultralane 743A/B is an optically clear, very low viscosity, tough, soft and flexible room temperature curing polyurea elastomer. This product has excellent handling characteristics and very low sensitivity to moisture during processing and curing. Among its many uses are flexible cast parts, washers, gaskets, and flexible pads. Ultralane 743A/B may also be used in potting and encapsulation.

The Ultralane[®] 743A/B system can be ordered in custom colors on request. Many other custom variations are available to meet your requirements. 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:

- Casting Flexible Prototype & Short-run parts
- Encapsulation and bonding of optical components
- Encapsulating and sealing pressure sensitive components

HANDLING PROPERTIES	VALUE	TEST METHOD
<u>Ultralane 743A (resin)</u>		
Visual Appearance	Clear Liquid	
Density, Part A	0.977 g/cm ³	ASTM E-201
Viscosity, Part A, @ 25°C	380 cps	ASTM D-2393
Flash Point	>93°C	ASTM D-92
<u>Ultralane 743B (hardener)</u>		
Visual Appearance	Clear Liquid	
Density,	0.901 g/cm ³	ASTM E-201
Viscosity, Part B, @ 25°C	80 cps	ASTM D-2393
Flash Point	>93°C	ASTM D-92
Mixed Viscosity @ 25°C	520 cps	ASTM D-2393
Mix Ratio by weight and volume:	100A : 10B by weight	
Work Life @ 25°C, 100g mass	14 minutes (Time to 20,000 cps)	
Gel Time @ @ 25°C, 100g mass	23 minutes	ATM D-2471
Demolding time:	16-24 hours @ room temperature or allow to gel for 1 hour then cure for 2-3 hours at 150°F. Allow to cool prior to demolding.	
Cure Schedules:	3-7 days at room temperature for full cure or gel at 25°C for at least 1 hour then heat cure for 4 hours @ 150°C (66°C).	

CURED PROPERTIES	VALUE	TEST METHOD
Appearance	Optically Clear	Visual
Density	0.98 g/cm ³	ASTMD-792
Hardness, Shore A	35±5	ASTM D-2240
Tensile Strength	700 psi	ASTM D-412
Tensile Modulus @ 100%	225 psi	ASTM D-412
Tensile Modulus @ 300%	530 psi	ASTM D-412
Tensile Elongation	650%	ASTM D-412
Tear Strength	370 ppi	ASTM D-624, Die C
Split Tear	60 ppi /72 ppi	ASTM D470 / ASTM D1938
Linear Shrinkage during cure*	0.0006 in/in	ASTM D-2566

* Molds are half round steel, 10 inches long, 0.875 inches deep

PROCESSING AND APPLICATION INSTRUCTIONS :

To use, weigh Part A and Part B 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 Parts A & B thoroughly using a spatula or stirring stick for at least 2 minutes using a kneading motion. Scrape the bottom and sides of the mixing container carefully and frequently to produce a uniform mixture.

Material temperatures should not be below 65°F when mixing.

PACKAGING AVAILABLE:

This product is available in 5-gallon pails as well as gallon, and quart kits.

It can be supplied in dual syringe cartridges of approximately 50ml or 250ml. The dual syringe cartridges eliminate the need for hand mixing and allow for almost air free injection into your mold.

Please call use with any special packaging requests or for information on custom kitting.

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 for 4 hours at 70°C to re-liquefy the material. Allow to cool to ambient temperature prior to using. Also protect the EpoPro 104A&B from exposure to 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:

Ultralane 743A

WARNING! Can cause skin irritation, eye irritation, allergic respiratory reaction, and allergic skin reaction. Can be Harmful if inhaled. May cause eye & skin irritation. 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.

Ultralane 743B

CAUTION! In accord with good industrial practice, handle with due care. Could cause eye, skin, and respiratory 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.

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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