

## Ultralane<sup>®</sup> 730A/B

### SHORE 75D, WHITE POLYURETHANE CASTING SYSTEM

Ultralane<sup>®</sup> 730A/B is a pourable liquid casting system that produces tough, rigid parts. The system is a translucent to white color depending on thickness of the casting and is easy to pigment or dye prior to curing in order to achieve a wide range of colors and visual effects

The Ultralane<sup>®</sup> 730A/B system is available in custom colors by request. It is also available in faster setting versions and 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:**

- Prototypes,
- Short run production of thermoplastic like parts like electronic housing
- Electric Encapsulation

<b>HANDLING PROPERTIES</b>	<b>VALUE</b>	<b>TEST METHOD</b>
<u>Ultralane 730A (resin)</u>		
Visual Appearance	Clear Amber liquid	
Density, Part A	1.1 g/cm <sup>3</sup>	ASTM E-201
Viscosity, Part A, @ 25°C	200 cps	ASTM D-2393
Flash Point	>93°C	ASTM D-92
<u>Ultralane 730B (hardener)</u>		
Visual Appearance	Cloudy, amber Liquid	
Density,	1.06 g/cm <sup>3</sup>	ASTM E-201
Viscosity, Part B, @ 25°C	200 cps	ASTM D-2393
Flash Point	>93°C	ASTM D-92
Mix Ratio by weight and volume:	2A : 1B	
Pot life, 4oz / 150 gram mass	20 minutes	
Demolding time:	2-4 hours @ room temperature or allow to gel then cure for 2 hours at 150°F or 1 hour @ 80°C. Allow to cool prior to demolding.	
Cure Schedules:	24 hours @ 25°C (Full properties may take up to 7 days at room temperature) <b>or</b> 16 hours @ 80°C <b>or</b> gel at 25°C for 1-2 hours + 4-8 hours @ 80°C.	

CURED PROPERTIES	VALUE		TEST METHOD
	ROOM TEMP. CURE	HEAT CURE	
Density	71 lb./ft <sup>3</sup> (1.4 g/cm <sup>3</sup> )	71 lb./ft <sup>3</sup> (1.4 g/cm <sup>3</sup> )	ASTMD-792
Hardness, Shore D	75±3	75±3	ASTM D-2240
Ultimate Flexural Strength	9,600 psi	10,700 psi	ASTM D-790
Flexural Modulus	271,00 psi	254,000 psi	ASTM D-790
Ultimate Tensile Strength	6,000 psi	6,800 psi	ASTM D-638
Tensile Elongation	3%	11%	ASTM D-638
Tear Strength	420 ppi	400 ppi	ASTM D-624
Tg by DMA	161°F / 72°C	204°F / 96°C	ASTM D-4065
Heat Deflection Temp. @ 66 psi	131°F / 55°C	170°F/77°C	ASTM D-648
Heat Deflection Temp. @ 264 psi	27°F / 53°C	160°F/71°C	ASTM D-648
Ultimate Compressive Strength	6,500 psi	13,000 psi	ASTM D695
Compressive Modulus	225,000 psi	220,000 psi	ASTM D-695
Izod Impact, notched	0.61 ft-lb./in	0.57 ft-lb./in.	ASTM D-256
Coefficient of Thermal Expansion			ASTM D-3386
-22°F to +86°F	58 ppm/°F	58 ppm/°F	
-30°C to +30°C	104 ppm/°C	103 ppm/°C	
Linear Shrinkage during cure*	0.002 in/in	0.005 in/in	ASTM D-624

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

## **PROCESSING AND APPLICATION INSTRUCTIONS :**

The Ultralane 730B component may settle during storage or transportation. Shaking or stirring the container of 730 Part B prior to use will ensure that the material is uniform.

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 Part 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.

## **PACKAGING AVAILABLE:**

This product is available in quart & gallon kits and also in 5-gallon pail and 55-gallon drums sizes. It can be supplied in dual syringe cartridges in approximately 50ml, 250ml, and 400ml sizes. The dual syringe cartridges eliminate the need for hand or machine mixing and can be a convenient way to achieve an air-free injection of mixed material 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 Ultralane 730A&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 730A**

**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 730B**

**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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