

## Ultralane<sup>®</sup> 755A/B



### SHORE 75±5D. LOW VISCOSITY POLYURETHANE CASTING SYSTEM

Ultralane<sup>®</sup> 755A/B is an easy to use, low viscosity casting system that readily picks up mold details and releases air bubbles. It contains no MOCA, TDI or phthalates and provides excellent mechanical properties without requiring heat cure. It is excellent for casting prototypes and rigid parts. It is also excellent for electrical encapsulation and potting.

The Ultralane 755 system comes standard in white. Black, and a natural off-white version that is to pigment or dye are also available. Custom colored versions can be provided by request, as are versions containing UV stabilizers or anti-oxidants to give protection against extended exposure to UV light or high temperatures in use. Other custom variations are possible, please contact us to discuss the development of a custom variant that would be suitable for your application.

#### SUGGESTED APPLICATIONS:

- Prototype & Short-run parts
- Electric Encapsulation

<b>HANDLING PROPERTIES</b>	<b>VALUE</b>	<b>TEST METHOD</b>
<u>Ultralane 755A (resin)</u>		
Visual Appearance	Clear Amber liquid	
Density, Part A	1.13 g/cm <sup>3</sup>	ASTM E-201
Viscosity, Part A, @ 25°C	40 cps	ASTM D-2393
Flash Point	>93°C	ASTM D-92
<u>Ultralane 755B (hardener)</u>		
Visual Appearance	White, Black, or natural	
Density,	1.13 g/cm <sup>3</sup>	ASTM E-201
Viscosity, Part B, @ 25°C	700 – 800 cps	ASTM D-2393
Flash Point	>93°C	ASTM D-92
Mixed Viscosity @ 25°C	200 cps	ASTM D-2393
Mix Ratio by weight and volume:	1A : 1B by weight or volume	
Pot life, 4oz / 150 gram mass	20 - 30 minutes	
Demolding time:	4-8 hours at 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 at 25°C (Full properties may take up to 7 days at room temperature) <b>or</b> gel at 25°C for 2 – 24 hours + 16 hours at 80°C.	

<b>CURED PROPERTIES</b>	<b>ROOM TEMP. CURE</b>	<b>HEAT CURE</b>	<b>TEST METHOD</b>
Density	70.5 lb./ft <sup>3</sup> (1.13 g/cm <sup>3</sup> )	70.5 lb./ft <sup>3</sup> (1.13 g/cm <sup>3</sup> )	ASTM D-792
Hardness, Shore D at 25°C	75	75	ASTM D-2240
Ultimate Tensile Strength	5300 psi	5500 psi	ASTM D-638
Tensile Elongation	13%	10%	ASTM D-638
Tear Strength – Die C	300 ppi	350 ppi	ASTM D-624
Compressive Yield Strength	6500 psi	7000 psi	ASTM D-695
Ultimate Flexural Strength	6800 psi	8500 psi	ASTM D-790
Notched Izod Impact Strength	0.71 ft-lb/in	0.55 ft-lb/in	ASTM D-256
Heat Deflection Temperature	51°C / 124°F	63°C / 146°F	ASTM D-648
Linear Shrinkage during cure*	0.001 in/in	0.004 in/in	ASTM D-624
Coefficient of Thermal Expansion (0°C to 80°C)	104 ppm/°C	101 ppm/°C	ASTM E-381
Thermal conductivity	0.2 W/mK	0.2 W/mK	ASTM D-2214

\* Mold #0 used for testing.

## **PROCESSING AND APPLICATION INSTRUCTIONS :**

The Ultralane 755B component may settle during storage or transportation. Shaking or stirring the container of 755B 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  $\pm 1\%$  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.

## **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 50°C to re-liquefy the material. Allow to cool to ambient temperature prior to using. Also protect the material 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 & PERSONAL HYGENIE**

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.

## Ultralane 755A

**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 755B

**WARNING!** 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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