

Ultralane[®] 746A/B SHORE 60D POLYURETHANE CASTING SYSTEM

Ultralane[®] 746A/B is an easy to use, low viscosity casting system that readily picks up mold details. It contains no MOCA or TDI, yet develops high tensile strength and tear strengths without a heat cure. However, if desired, a heat cure will increase the mechanical properties even further. The Ultralane 746 system produces a natural amber color and is also available in black and many other colors.

The Ultralane[®] 746A/B system can be ordered in custom colors on request and can be supplied with additional UV stabilizers or anti-oxidants added to protect against extended exposure to UV light or high temperatures in use. 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:

- Prototype & Short-run parts
- Ideal for metal-forming applications and parts such as impellers, rollers, gears and wheels.
- Electric Encapsulation

HANDLING PROPERTIES	VALUE	TEST METHOD
<u>Ultralane 746A (resin)</u>		
Visual Appearance	Clear to slightly hazy liquid	
Density, Part A	1.03 g/cm ³	ASTM E-201
Viscosity, Part A, @ 25°C	8,000 cps	ASTM D-2393
Flash Point	>93°C	ASTM D-92
<u>Ultralane 746B (hardener)</u>		
Visual Appearance	Dark Brown-Orange	
Density,	1.03 g/cm ³	ASTM E-201
Viscosity, Part B, @ 25°C	100 – 200 cps	ASTM D-2393
Flash Point	>93°C	ASTM D-92
Mixed Viscosity @ 25°C	2,200 cps	ASTM D-2393
Mix Ratio by weight and volume:	100A : 60B by weight or volume	
Pot life, 4oz / 150 gram mass	20 - 30 minutes	
Demolding time:	16-24 hours @ room temperature or allow to gel for 1 hour then cure for 2 hours at 150°F or 1 hour @ 80°C. Allow to cool prior to demolding.	
Cure Schedules:	2-3 days at room temperature or gel at 25°C for 4 – 24 hours + 4 hours at 150°F (66°C).	

CURED PROPERTIES	VALUE	VALUE	TEST METHOD
	ROOM TEMP. CURE	HEAT CURE	
Density	67 lb./ft ³ (1.06 g/cm ³)	67 lb./ft ³ (1.04 g/cm ³)	ASTMD-792
Hardness, Shore D	60±5	60±5	ASTM D-2240
Ultimate Tensile Strength	3,400 psi	3,600 psi	ASTM D-638
Tensile Elongation	325%	310%	ASTM D-638
Tear Strength	560 ppi	550 ppi	ASTM D-624
Compressive Strength	3,600 psi	3,680 psi	ASTM D-695
Linear Shrinkage during cure*	0.001 in/in	0.002 in/in	ASTM D-624
Heat Deflection Temperature	135°F (57.2°C)	150°F (65.5°C)	ASTM D-648

* 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.

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 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 746A

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 746B

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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