

Ultralane[®] 747A/B



SHORE 85A, POLYURETHANE SEALANT & ENCAPSULANT

Ultralane[®] 747A/B is a low viscosity, two-part polyurethane system with excellent mechanical and electrical properties and low moisture sensitivity. It is often used to bond, seal, or encapsulate electronic devices and may be used to cast or brush on to form abrasion resistant parts, coatings, or linings. Due to its unique chemistry, the system is much less sensitive to humidity and other ambient moisture during curing than other polyurethane systems. This tends to make it a very user friendly system, especially if working in high humidity environments.

The standard product color is amber, but black and custom colored versions are available by request. Please contact us for assistance if a custom color or a modified version of the system would be of interest.

FEATURES:

- Rapid gel time, even in small masses
- Low moisture sensitivity during mixing and curing
- Excellent mechanical properties and high abrasion resistance
- Excellent adhesion to most substrates including many plastics and most metals

HANDLING PROPERTIES	VALUE	TEST METHOD
<u>Ultralane 747A (resin)</u>		
Visual Appearance	Yellowish liquid	
Density, Part A	1.03 g/cm ³	ASTM E-201
Viscosity, Part A, @ 25°C	3690 cps	ASTM D-2393
<u>Ultralane 761B (hardener)</u>		
Visual Appearance	Amber liquid	
Density,	1.10 g/cm ³	ASTM E-201
Viscosity, Part B, @ 25°C	180 cps	ASTM D-2393
Mixed Viscosity @ 25°C	2500 cps	ASTM D-2393
Mix Ratio by weight:	100A : 30B by weight	
Mix Ratio by volume:	100A : 28B by volume	
Pot life, 100 gram mass	14 minutes	
Demolding time:	4 hours @ room temperature or allow to gel then cure for 1 hour at 65°C / 149°F. Allow to cool prior to demolding.	
Cure Schedules:	24 - 48 hours @ 25°C (Full properties may take up to 7 days at room temperature) or 2-4 hours @ 65°C.	
CURED PROPERTIES	ROOM TEMP. CURE	TEST METHOD

Density	1.07 g/cm ³	ASTM D-792
Hardness, Shore A	85A	ASTM D-2240
Ultimate Tensile Strength	2050 psi	ASTM D-638
Tensile Elongation	260%	ASTM D-638
Tear Strength	210 ppi	ASTM D-624, die C
Thermal conductivity	0.22 W/mK	ASTM D-2214
Surface Resistivity	2.0 x 10 ¹³ ohm	ASTM D-257
Volume Resistivity	1.0 x 10 ¹³ ohm-cm	ASTM D-257
Dielectric Strength	520 volts/mil	ASTM D-149
Dielectric Constant		ASTM D-150
60 Hz	DC: 7.20	
1 MHz	DC: 5.60	
Insulation Resistance		WE AT8612
after 30 days at 95°F and 95% relative humidity	> 1 x 10 ¹¹ ohm	

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.

PACKAGING AVAILABLE:

This product is available in quarts, gallons, and 5-gallon pails. Other package sizes available by request.

STORAGE GUIDELINES:

Store these materials in a clean, cool and dry environment in their tightly closed original containers. Protect from 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 -8 hours at 60°C - 70°C to re-liquefy the material. Allow to cool to ambient temperature prior to using. Also protect the Ultralane 760A & 761B 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 6 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 747A

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 747B

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.

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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