

## Ultralane<sup>®</sup> 772A/C

### Heat Resistant Urethane Adhesive

Ultralane<sup>®</sup> 772A/C is a two part urethane adhesive that forms tough, heat resistant bonds. This adhesive effectively bonds metals and plastics, which makes it an ideal choice for applications joining a variety of substrates with different coefficients of thermal expansion.

The Ultralane<sup>®</sup> 772A/C system cures at 25°C in 3 to 7 days, or a heat cure can be used to shorten cure time. The cured polymer is heat resistant and provides excellent resistance to many chemicals and environmental conditions.

#### BENEFITS

- Heat Resistant to 250°F
- Excellent Chemical and Environmental Resistance
- High Peel Strength

HANDLING PROPERTIES	VALUE	TEST METHOD
<u>Ultralane<sup>®</sup> 772A</u>		
Visual Appearance	Amber	Visual
Density	1.05 g/cm <sup>3</sup>	ASTM E-201
Viscosity, Part A, @ 25°C	16,000 cP	ASTM D-2393
Flash Point	320°F	ASTM D-92
<u>Ultralane<sup>®</sup> 772C</u>		
Visual Appearance	Dark Amber	Visual
Density	1.30 g/cm <sup>3</sup>	ASTM E-201
Viscosity, Part B, @ 25°C	Semi-Paste	
Flash Point	>275°F	ASTM D-92
<u>Mixed Properties</u>		
Mix Ratio	100A:42C by weight (3A:1C by volume)	Calculated
Mixed Viscosity	Semi-Paste	
Pot life (100 grams) @ 25°C	35 minutes	ASTM D-2471
Shelf-life	at least 6 months @ room temperature (~ 25°C)	
Suggested cure times	3-7 days at 25°C or Gel at 25°C + 8-16 hours at 150°F*	
*Note: many other cure schedules are possible. Please contact us for assistance if you'd like to use an alternate cure schedule.		

PHYSICAL PROPERTIES	VALUE	TEST METHOD
Color	Dark Amber	Visual
Hardness	50D	ASTM D-2240

# Product Datasheet

## Lap Shear Strengths

ASTM D-1002

After Heat Aging at Various Temperatures:

<u>Aging Period</u>	<u>-65°F</u>	<u>77°F</u>	<u>250°F</u>
Initial results	5500 psi	2800 psi	950 psi
100 hrs	6500 psi	3200 psi	1000 psi
500 hrs	6400 psi	2800 psi	1000 psi
1000 hrs	5500 psi	3000 psi	950 psi

After Tropical Aging 30 days at 145°F and 95% relative humidity:

<u>Test Temperature</u>	
77°F	2500 psi
250°F	700 psi

With Various Substrates:

<u>Material</u>	
Aluminum	2800 psi
Polycarbonate	800 psi
ABS	700 psi
PEEK	700 psi
ULTEM	840 psi (Substrate Failure)

## T-Peel

ASTM D-1876

After Heat Aging:

<u>Aging Period</u>	<u>77°F</u>
Initial results	60 pli
100 hrs	90 pli
500 hrs	90 pli
1000 hrs	80 pli

After Tropical Aging 30 days at 145°F and 95% relative humidity:

<u>Test Temperature</u>	
77°F	35 pli

**NOTE:** Typical Properties determined using Ultralane® 772A/C cured 16 hours at 150°F cure - unless otherwise stated. Values are based on laboratory or average production results – not for specification purposes.

## SUGGESTED PROCESSING GUIDELINES

Ultralane® 772A/C can be applied by stiff brush, squeegee, knife, or spatula. It is also suitable for meter-mix dispensing and can be supplied in dual syringes cartridges for use with static mixing nozzles.

For manual mixing, weigh Part A and Part B in the recommended ratio as accurately as possible into a clean mixing container. Always use weighing equipment having accuracy in proportion to the amounts being weighted. Blend by using a spatula or stirring stick for 1-2 minutes using a kneading motion. Scrape the bottom and sides of the mixing container carefully and frequently to produce a uniform mixture. Always apply the adhesive to clean, dry surfaces.

For best bond strength, roughen surface to be bonded with wire brush, sand-blasting, etc. After roughening, clean and dry surface and remove any loose material prior to bonding. Optimal bond strengths are typically achieved with an adhesive bondline thickness of 3 – 5 mils, but

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larger gaps and thicker bondlines are possible with this adhesive without major loss of mechanical strength.

## STORAGE GUIDELINES

Store this material in a clean, cool and dry environment in its tightly closed original container.

## 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® 772A

**WARNING!** Contains organic isocyanate. Causes severe eye and skin irritation and possible eye burns. Vapor or mist harmful if inhaled. Can cause allergic respiratory and skin reaction. Harmful if swallowed.

### Ultralane® 772C

**WARNING!** Vapor or fumes may be harmful if inhaled or ingested. Slightly irritating to eyes, moderately irritating to skin.

## FIRST AID

In case of contact:

**Ingestion:** Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

**Skin:** Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes. Seek immediate medical attention.

**Inhalation:** Remove to fresh air. Seek immediate medical attention.

**Eyes:** Immediately flush eyes with water for at least 15 minutes. Seek immediate medical attention.

**Note to Physician:** Allergic dermatitis or respiratory response in susceptible individuals may be delayed. It may appear after weeks or even months of frequent and prolonged contact.

**Medical Conditions Aggravated by Exposure:** Allergy, eczema, eye or respiratory conditions.

## 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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