

Ultralane[®] 776A/B

Tough, High Peel Strength Urethane Adhesive System

Ultralane[®] 776A/B is a two part urethane adhesive designed for bonding metals such as steel and aluminum to plastics such as phenolics, epoxies, polyesters, and many thermoplastics. It has a semi-paste consistency that resists running and sagging up to ¼", but spreads easily. It also has a long work-life to allow for assembly of large or complicated parts. The cured adhesive resists impact, thermal cycling, and provides a high peel strength.

The Ultralane[®] 776A/B system can be supplied in custom colors and with faster set or cure times if desired. Please contact us to discuss your application if a modified version of this system might be of interest for your application.

BENEFITS

- Room Temperature Cure or Fast heat cure
- Bonds most materials – including many hard-to-bond plastics
- High Peel Strength

HANDLING PROPERTIES	VALUE	TEST METHOD
<u>Ultralane[®] 776A</u>		
Visual Appearance	Clear Amber	Visual
Density	1.0 g/cm ³	ASTM E-201
Viscosity, Part A, @ 25°C	4,000 cP	ASTM D-2393
Flash Point	>250°F	ASTM D-92
<u>Ultralane[®] 776B</u>		
Visual Appearance	Olive-Tan	Visual
Density	1.15 g/cm ³	ASTM E-201
Viscosity, Part B, @ 25°C	Paste	ASTM D-2393
Flash Point	>200°F	ASTM D-92
<u>Mixed Properties</u>		
Mix Ratio	100A:40B by weight (2A:1B by volume)	Calculated
Mixed Viscosity	Semi-Paste	ASTM D-2393
Pot life (100 grams) @ 25°C	35- 45 minutes	ASTM D-2471
Shelf-life	at least 6 months @ room temperature (~ 25°C)	
Suggested cure times	5-7 days @ 25°C or 2 hours at 25°C + 4 hours at 150°F(66°C)*	
*Note: many other cure schedules are possible. Please contact us for assistance if you'd like to use an alternate cure schedule.		

Product Datasheet

PHYSICAL PROPERTIES	VALUE		TEST METHOD
Color	Olive-Tan*		Visual
Hardness	70A		ASTM D-2240
Tensile Strength	1000 psi		ASTM D-412
Tensile Elongation	700%		ASTM D-412
Lap Shear Strengths			ASTM D-1002
	<u>-67°F(-55°C)</u>	<u>77°F (25°C)</u>	<u>180°F (82°C)</u>
Aluminium to aluminum	3500 psi	800 psi	240 psi
Ultem® to Ultem®	N/T	640 psi	N/T
180° T-Peel	28ppi		ASTM D-1876

NOTE: Typical Properties determined using Ultralane® 776A/B cured 7 days @ 77°F cure - unless otherwise stated. Values are based on laboratory or average production results – not for specification purposes.

**Customer colors available by request. Custom viscosity, pot life and cure speeds are also available by request.

*** Ultem® is a registered trademark of Momentive for their Polyetherimide materials

SUGGESTED PROCESSING GUIDELINES

Ultralane® 776A/B can be applied by stiff brush, squeegee, knife, or spatula. It is also suitable for meter-mix dispensing.

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 surfaces to be bonded with wire brush, sand-blasting, etc. After roughening, clean and dry surface and remove and loose material prior to bonding. Optimal bond strengths are typically achieved with an adhesive bondline thickness of 3 – 5 mils, but 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® 776A 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.

Product Datasheet



Ultralane® 776B **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 laundry 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.

Specialty Polymers & Services, Inc. (SP&S)

28064 Avenue Stanford, Suite F

Valencia, CA 91355

www.spolymers.com

Tel: 661-294-1790

Fax: 661-294-0640

info@spolymers.com