

**Advanced Materials****Uralane<sup>®</sup> 5776-A/B**

## POLYURETHANE ADHESIVE

- 100% Solids
- High Peel Strength

**DESCRIPTION**

Uralane 5776-A/B polyurethane adhesive is a two-part system designed for bonding metals and aluminum as well as plastic substrates including phenolics, epoxies, polyesters and many thermoplastics. Uralane 5776-A/B polyurethane adhesive has a semi-paste consistency for easy handling and spreading. The adhesive's long work life facilitates assembly of large parts. Bonded assemblies can be cured at room temperature in 5-7 days or accelerated with heat cure and, once cured, exhibit high peel strength.

**TYPICAL PROPERTIES AS RECEIVED**

<u>Property</u>	<u>5776-A Resin</u>	<u>5776-B Hardener</u>	<u>5776-A/B System</u>	<u>Test Method</u>
Color	Amber clear	Olive/tan	Olive/tan	Visual
Density, g/cc.	1.0	1.15	1.10	ASTM-D-792
Viscosity, cP at 77°F (25°C)	4,000	Paste	Semi-paste	ASTM-D-2196
Gel time 100 gms at 77°F (25°C), minutes	--	--	35 -45	ASTM-D-2471
Shelf life* at 77°F (25°C), unopened, months	6	6	--	--

+ See storage and handling information on page two.

**MIX RATIO**

To 100 parts by weight of Uralane 5776-A resin, add 40 parts by weight of Uralane 5776-B hardener. Mix both components thoroughly for several minutes to insure complete and uniform mixing.

**CURE SCHEDULE**

1. 5-7 days at 77°F (25°C)  $\pm$  2°F
2. 2 hours at room temperature plus 4 hours at 150°F (66°C)
3. 2 hours at room temperature plus 1-1/2 hours at 200°F (93°C)

**TYPICAL CURED PROPERTIES** (Not for specification purposes)

<u>Test</u>		<u>Result</u>	<u>Test Method</u>
Tensile lap shear, AL/AL, psi (MPa)	at -67°F (-55°C)	3500 (24.1)	ASTM-D-1002
	at 180°F (83°C)	240 (1.6)	--
after 7 days immersion in water	at 77°F (25°C)	800 (5.5)	--
Ultem/Ultem®*		640 (4.4)	--
T-peel, AL/AL pli (N/mm)		28 (4.9)	ASTM-D-1876
after 7 days immersion in water	at 77°F (25°C)	34 (5.9)	--
Durometer hardness, Shore A		70	ASTM-D-2240
Tensile strength, psi (MPa)		1000 (6.9)	ASTM-D-412
Elongation, %		700	ASTM-D-412
Tear Strength, ppi (N/mm)		250 (43.7)	ASTM-D-624

**STORAGE/ SHELF LIFE :** Polyurethane resins and hardeners should be stored in a dry place in their original, sealed containers at temperatures from 70-90°F (21-32°C). These products are moisture sensitive and are packaged under a blanket of dry nitrogen. Material temperatures should be above 65°F (18°C) when mixing. After opening a container, re-blanket with dry nitrogen and then tightly reseal.

Under these conditions, polyurethane resins will remain useable for 6 months from date of shipping from Huntsman.

**CAUTION :**

Huntsman Advanced Materials Americas Inc. maintains up-to-date Material Safety Data Sheets (MSDS) on all of its products. These sheets contain pertinent information that you may need to protect your employees and customers against any known health or safety hazards associated with our products. Users should review the latest MSDS to determine possible health hazards and appropriate precautions to implement prior to using this material. Copies of the latest MSDS may be requested by calling our customer service group at 800-367-8793 or emailing your request to [adhesives\\_group@huntsman.com](mailto:adhesives_group@huntsman.com).

**FIRST AID !**

Eyes and skin: Flush eyes with water for 15 minutes. Contact a physician if irritation persists. Wash skin thoroughly with soap and water. Remove and wash contaminated clothing before reuse.

Inhalation: Remove subject to fresh air.

Swallowing: Dilute by giving water to drink and contact a physician promptly. Never give anything to drink to an unconscious person.

**KEEP OUT OF REACH OF CHILDREN****FOR PROFESSIONAL AND INDUSTRIAL USE ONLY**

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