

Advanced Materials

Uralane® 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

Property	Test Method	5776 A	5776 B	Mixed System
Color	Visual	Amber clear	Olive/tan	Olive/tan
Density, g/cc.	ASTM D792	1.0	1.15	1.10
Viscosity, cP at 77°F (25°C)	ASTM D2196	4,000	Paste	Semi-paste
Gel time 100 gms at 77°F (25°C), minutes	ASTM D2471	-		35-45

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 SCHEDULES

- 1. 5-7 days at 77°F (25°C) ± 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)



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TYPICAL CURED PROPERTIES (Not for specification purposes)

Test	Test Method	Result
Tensile lap shear, psi (MPa) Al-Al at -67°F (-55°C) at 77°F (25°C) at 180°F (83°C) after 7 days immersion in water at 77°F (25°C) Ultem-Ultem® (Polyetherimide)	ASTM D1002	3500 (24.1) 2300 (15.9) 550 (3.8) 800 (5.5) 640 (4.4)
T-peel, Al-Al pli (N/mm) at 77°F (25°C) at 77°F (25°C), after 7 days immersion in water	ASTM D1876	28 (4.9) 34 (5.9)
Durometer hardness, Shore A	ASTM D2240	70
Tensile strength, psi (MPa)	ASTM D412	1000 (6.9)
Elongation, %	ASTM D412	700
Tear Strength, ppi (N/mm)	ASTM D624	250 (43.7)

STORAGE

Uralane[®] 5776 A/B should be stored in a dry place, in the sealed original container, at temperatures between +2°C and +40°C (+35.6°F and 104°F). These products should not be exposed to direct sunlight. Under these storage conditions, and when supplied under Huntsman standard certification, these products have a shelf life of 6 months from date of shipment (expiration date may differ based on customer specification).

These products are moisture sensitive and are packaged under a blanket of dry nitrogen. Material temperatures should be above 18°C (65°F) when mixing. After opening a container, re-blanket with dry nitrogen and then tightly reseal.

PRECAUTIONARY STATEMENT

Huntsman Advanced Materials Americas LLC 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 <u>prior to</u> using this material.

First Aid!

Refer to MSDS as mentioned above.

KEEP OUT OF REACH OF CHILDREN. FOR PROFESSIONAL USE ONLY.

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