

Product Data

URALANE® 5774-A/C POLYURETHANE ADHESIVE

- High Strength
- Self-Extinguishing
- High Peel Strength

DESCRIPTION

Uralane 5774-A/C polyurethane adhesive is a two-component, self-extinguishing material that cures at room or elevated temperature to form tough, impact-resistant bonds to thermoplastics or metal substrates. The mixed compound is a soft paste for application to vertical or overhead surfaces. Cure may be accelerated at moderate temperature (150-200°F/65-95°C) for faster production schedules. This product is available in easy-to-use Accumix™ cartridges for quick, convenient application. Uralane 5774-A/C polyurethane adhesive is qualified to BMS 5-105, Type 5.

TYPICAL PROPERTIES AS RECEIVED

Property	<u>5774-A</u>	<u>5774-C</u>	<u>5774-A/C</u>	<u>Test Method</u>
Color	Off-white	Beige	Beige	Visual
Specific gravity	1.1±.05	1.2±.05	1.15	ASTM-D-792
Viscosity, cP at 77°F (25°C)	20-35,000	Semi-paste	Semi-paste	ASTM-D-2196
Gel time, 100 gms. at 77°F (25°C)	--	--	15-25 min.	ASTM-D-2471
Shelf life at 77°F (25°C), unopened	6 months	6 months	--	--

NOTE: Urethane products are sensitive to humid environment. DO NOT REFRIGERATE.
 Store in a warm, dry place for optimum shelf life.

MIX RATIO

To 100 parts by weight of Uralane 5774-A resin, add 55 parts by weight of Uralane 5774-C hardener or 2:1 parts by volume. Mix both components thoroughly for 2-3 minutes to ensure complete blending. Mix only that amount which can be dispensed in 15 minutes at 77°F (25°C). To extend work life spread mixed adhesive on a metal plate covered with polyethylene film immediately after mixing.

CURE SCHEDULE (See additional details on page 2)

7 days at room temperature, or gel at room temperature plus 2-4 hours at 150°F (65°C), or 1-2 hours at 200°F (95°C).

TYPICAL CURED PROPERTIES (Not for specification purposes)

<u>TEST</u>	<u>RESULTS</u>			
Flammability 60 sec. ignition vertical on a 15 mils of cure material spread over glass fabric cloth type 116	Self-extinguishing	< 2 seconds		
	Burn length	< 7 inches		
	Drip self-extinguishing	< 1 second		
Tensile lap shear, ASTM D-1002, psi (MPa)	<u>-67°F</u>	<u>77°F</u>	<u>180°F</u>	<u>77°F*</u>
AL/AL	4500	2200	1300	2300
polycarbonate to polycarbonate	1500	1000	900	1000
Declar T®**	1550	1350	600	
Kydex®*** 6565	1500	1200	450	
T-peel, ASTM D-1876, pli (N/mm)				
AL/AL	50	35	--	30
polycarbonate to polycarbonate	--	35	--	40
Hardness, ASTM D-2240, Shore D, --	60	50	60	

* Aged 14 days at 120°F (48°C) and 95% relative humidity. Tested at 77°F (25°C).

CURE RATE OF URALANE® 5774-A/C POLYURETHANE ADHESIVE

(At 77°F/25°C)

The data below illustrates that parts bonded with Uralane 5774-A/C polyurethane adhesive.

- 1) Can be handled within 4 hours at room temperature after application.
- 2) Early green strength (75% of full strength) is achieved in 24 hours at room temperature.
- 3) Ultimate strength is reached in 6 - 7 days at room temperature.

<u>Time @ 77°F (25°C)</u> (hours)	<u>AL/AL Lap Shear</u> (psi/MPa)
2	220/1.5
4	600/4.1
8	740/5.1
16	890/6.1
24	1500/10.3
72	1780/12.3
120	1840/12.6
144	2016/13.9
168	2080/14.3

For faster cure, the fabricated part can be subjected to the following accelerated cure schedules after a 30 - 60 minute gelation at room temperature:

Option #1: 2-4 hours at 150°F (66°C)

or

Option #2: 1-2 hours at 200°F (95°C)

For optimum performance of Uralane 5774-A/C polyurethane adhesive, the recommended bond line thickness is 3-5 mils and the fabricated part should be clamped (or held stationary) for a minimum of 4 hours.

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.

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

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