

N109 W13300 ELLSWORTH DRIVE GERMANTOWN, WI 53022  
262-253-5900 FAX 262-253-5919

**DESCRIPTION:**

*ResinLab*<sup>®</sup> *UR7024 Clear* is a two-part room temperature curing polyurethane adhesive designed to impart exceptional bond strength to polycarbonate. *UR7024 Clear* bonds and cures quickly to a clear flexible adhesive useful in applications that require tough, impact resistant clear parts and high peel strength. *UR7024 Clear* can also be used for general purpose adhesive applications and aesthetic assemblies.

*UR7024 Clear* was formulated to a 1A:1B volume mix ratio for use in side-by-side dispensing cartridges and meter/mix and dispense equipment. It will reach full cure at room temperature within 24 hours at room temperature. Cure time can be accelerated by the application of heat after product has gelled. Times and temperatures from 30 minutes at 65 °C to 15 minutes at 100 °C are typical for small castings (less than 50 grams). Time to heat substrate must be taken into account. Cooler temperatures will extend work time and increase cure time.

**TYPICAL PROPERTIES:**

All properties given are at 25 °C unless otherwise noted.

<b>Property:</b>	<b>Value:</b>	<b>Test Method or Source:</b>
<b>Color</b>	Clear	Visual
<b>Mix Ratio</b>	Part A to Part B	Calculated
<b>Mix Ratio by weight</b>	0.98 to 1	
<b>Mix Ratio by volume</b>	1 to 1	
<b>Cure Schedule</b>	24 hrs @ 25 °C 30 min @ 65 °C 15 min @ 100 °C	
<b>Viscosity - Part A</b>	1,100 cP	TA HR20 Rheometer 25mm parallel plate @
<b>Viscosity - Part B</b>	8,900 cP	1/s DCV6100723
<b>Viscosity - Mixed</b>	5,700 cP	
<b>Specific Gravity - Part A</b>	1.05	Calculated
<b>Specific Gravity - Part B</b>	1.06	
<b>Specific Gravity - Mixed</b>	1.06	
<b>Pot Life defined as the time it takes for initial mixed viscosity to double</b>	1 – 2 minutes	TA HR20 Rheometer parallel plate 25mm @ 1/s DCV6100723
<b>Gel Time</b>	5.5 minutes (30 g sample)	Visual, Observed cup and stick
<b>Hardness</b>	45 Shore D 90 Shore A	455300006287/ASTM D2240
<b>Glass Transition Temperature/Tg</b>	-30 °C	453560822409 by DSC
<b>Tensile Properties:</b>		4535601224470/ASTM D638
<b>Strength</b>	1,200 psi	
<b>Elongation</b>	165 %	
<b>Modulus</b>	3,000 psi	

N109 W13300 ELLSWORTH DRIVE GERMANTOWN, WI 53022  
262-253-5900 FAX 262-253-5919

<b>Property:</b>	<b>Value:</b>	<b>Test Method or Source:</b>
<b>Coefficient of Thermal Expansion by TMA: below Tg</b>	229 ppm/°C	455300005340/ASTM E831 TMA, 5 °C/min
<b>Operating Temperature Range</b>	-40 to 125 °C**	
<b>Relative Thermal Index (RTI)</b>	50 °C	UL746B, Table 7.1 Generic Value Based on Composition

\* Asterisk denotes values considered typical to associated resin systems or extrapolated from other test results.

\*\* Operating Temperature Range is based on average design requirements and is not intended as a guarantee of suitability for all applications operating at that temperature.

\*\*\* This TDS contains values that have been updated. The values reported in this technical data sheet are typical values of the product, and are highly dependent on test conditions and methodology. We actively seek the most precise and accurate ways to measure and interpret performance of our products, and to update estimated values with measured values. The formula has not been revised or changed in any way. Although the values on paper have changed, you can expect the same performance of the product.

<b>Additional Performance Data – Lap Shear Adhesion, 4535601224468/ASTM D1002:</b>				
<b>Substrate Type</b>	<b>Strength</b>	<b>Test Temperature</b>	<b>Cure Schedule</b>	<b>Bond Line Thickness</b>
Al to Al	900 psi	25 °C		0.010 "
PC to PC	1,100 psi	25 °C		0.010 "

### **INSTRUCTIONS:**

1. Bring to room temperature prior to use.
2. Cartridge format: Mixer should be attached keeping the cartridge vertical and any air pocket purged this way. After the mixer contains material, the mixer tip can be dropped to dispense pre-bleed amount. Attach a new static mixer with each cartridge, then pre-bleed the first 3 inches of dispensed material or until a uniform color is obtained. Maintain adequate velocity during dispensing to ensure complete mixing.
3. Bulk format: stir until homogeneous weigh and mix parts A and B accurately and thoroughly, scraping sides of container often. Do not pour from mixing container, transfer to a new container as residual unmixed material may cause a tacky spot on the surface of the casting. Maintain adequate velocity during dispensing to ensure complete mixing.
4. Allow to cure undisturbed until product is fully gelled or tack-free to the touch.
5. Clean up uncured resin with suitable organic solvent such as MEK or acetone.

---

N109 W13300 ELLSWORTH DRIVE GERMANTOWN, WI 53022  
262-253-5900 FAX 262-253-5919

**SHELF LIFE AND STORAGE:**

6 months at 25 °C Bulk.

12 months at 25 °C in cartridges that are foil bagged and desiccant packed.

Specialty packaging may be less.

Isocyanates are sensitive to moisture and should be kept in their original container or in a volume tank under dry nitrogen blanketing. Many isocyanates are prone to dimerization, the formation of a white precipitate. Products with minor amounts of this precipitate normally cure to full properties. Storage at 20 - 30 °C (68 °F to 86 °F) is recommended to ensure full shelf life.