# TECHNICAL DATA SHEET

## UR7006HV Clear

Revision date: 4/12/2022

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

**DESCRIPTION:**

*ResinLab® UR7006HV Clear* is an industrial grade urethane adhesive. This is a high viscosity version of UR7006. This formulation is designed to cure under ambient conditions to form a clear, flexible material with very good adhesion to polycarbonate and other plastics.

*UR7006HV Clear* was formulated to a 1A:1B by volume mix ratio for use in side-by-side dispensing cartridges and meter/mix and dispense equipment. It reaches full cure in 12 hours at room temperature. Cure time can be accelerated by application of heat. Times and temperatures from 30 minutes at 65 °C and 15 minutes at 100 °C are typical for most applications. Time to heat substrate must be taken into account. Cooler temperatures will also extend work time and increase cure times.

**TYPICAL PROPERTIES:**

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

| *Property:* | *Value:* | *Test Method or Source:* |
|---|---|---|
| **Color** | Clear<br>Translucent | Visual |
| **Mix Ratio** | Part A to Part B | Calculated |
| **Mix Ratio by weight** | 0.98 to 1 | |
| **Mix Ratio by volume** | 1 to 1 | |
| **Cure Schedule** | 12 hrs @ 25 °C<br>30 min @ 65 °C<br>15 min @ 100 °C | |
| **Viscosity - Part A** | 50,000 cP | TA HR20 Rheometer 25mm parallel plate @ 1/s DCV6100723 |
| **Viscosity - Part B** | 47,000 cP | |
| **Viscosity - Mixed** | 44,000 cP | |
| **Specific Gravity - Part A** | 1.05 | Calculated |
| **Specific Gravity - Part B** | 1.1 | |
| **Specific Gravity - Mixed** | 1.07 | |
| **Pot Life defined as the time it takes for initial mixed viscosity to double** | 3 minutes | TA HR20 Rheometer parallel plate 25mm @ 1/s DCV6100723 |
| **Hardness** | 90 Shore A | 455300006287/ASTM D2240 |
| **Glass Transition Temperature/Tg** | -8 °C | 453560822409 by DSC |
| **Tensile Properties:** | | 4535601224470/ASTM D638 |
| **Strength** | 1,400 psi | |
| **Elongation** | 175 % | |
| **Modulus** | 1,300 psi | |
| **Lap Shear Strength** | | 4535601224468/ASTM D1002 |
| **0.010" Bond Line, Al to Al,PC to PC** | 1,200 psi | |

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| *Property:* | *Value:* | *Test Method or Source:* |
|---|---|---|
| **Coefficient of Thermal Expansion by TMA:** | | 455300005340/ASTM E831 TMA, 5 °C/min |
| **below Tg** | 109 ppm/°C | |
| **above Tg** | 240 ppm/°C | |
| **Operating Temperature Range** | -40 to 125 °C** | |
| **Relative Thermal Index (RTI)** | 50 °C | UL746B, Table 7.1<br>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.

**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.

**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.