



ISO 9001-2015 Certified

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# TECHNICAL BULLETIN

## URASET™ UB-21 FLEXIBLE URETHANE ADHESIVE

**UB-21** is a clear, two-part urethane resin system, which combines good handling characteristics with excellent cured properties. Its low viscosity allows good flowability and air release.

The cured elastomer has excellent bond to metals, ceramics, and many plastics used in medical industry such as acrylic, polycarbonate, PVC etc. They also have excellent water resistance and are exceptionally resistant to thermal shock. They can be used as an adhesive or for potting, casting and encapsulating applications.

<b><u>TYPICAL HANDLING PROPERTIES:</u></b>	
Resin	Part A
Hardener	Part B
Mix ratio by weight (Part A / Part B)	58.3/100
Mixed viscosity at 25°C, centipoise	750-850
Pot life at 25°C (100 gram), minutes	100-140
Shelf Life:	
Two Parts Kit @ 25°C	6 months
Frozen @ -40°C or below	6 months
Recommended cure	Gel @ 25°C + 2 hr @ 100°C
Alternate Cure	2-3 days @ 25°C
<b><u>TYPICAL CURED PROPERTIES:</u></b>	
Color	Light Clear Yellow
Specific Gravity	1.1
Hardness, Shore A	88
Hardness, Shore D	40
Lap Shear Strength to Aluminum, psi	1280
Tensile Strength, psi	1600
Elongation @ break, %	190
Water Absorption, %	
7 days immersion at RT	0.11
7 days immersion at 100°C	0.68
Glass Transition Temperature, °C	4
Dielectric Strength, Volts/mil	370
Dielectric Constant at 1 kHz	3.6
Dissipation Factor at 1 kHz	0.04
Volume Resistivity, ohm-cm	2x10 <sup>13</sup>

### **INSTRUCTIONS FOR USE:**

1. Weigh each 58.3 grams of PART-A to 100 grams of PART-B.
2. Mix until uniform. Scrape the sides and bottom of container repeatedly during mixing.
3. Vacuum de-airs for 3-5 minutes.
4. Apply to clean bonding surfaces and cure as recommended to achieve the desired properties.
5. Typical cured properties were determined using recommended cure schedule.
6. Some difference in properties may occur with the alternate or other cure schedules.

**Thaw premixed frozen adhesive at room temperature for 5-10 minutes. Dispense adhesive and cure at recommended schedules.**

### **AVAILABILITY:**

**2 parts Kit** - Packaged in Pint, Quart, Gallon, and 5-Gallon size.

**Premixed and frozen** - Packaged in 3cc, 5cc, and 10cc disposable syringes.

### **FOR INDUSTRIAL USE ONLY:**

Practices of good housekeeping, safety and cleanliness should be followed before, during and after use.

### **WARNING!**

Adequate ventilation of workplace and ovens is essential. Refer to Material Safety Data Sheet (**MSDS**) for additional health and safety information.

**DISCLAIMER:** All data given here is offered as a guide to the use of these materials and not as a guarantee of their performance. The user should evaluate their suitability for own purposes. Properties are typical and should not be used in preparing specifications. Statements are not to be construed as recommendations to infringe any patent.