

WC-792 A/B

WATER CLEAR RIGID 84 SHORE D URETHANE CASTING SYSTEM

PRODUCT DESCRIPTION:

WC-792 A/B is an impact resistant, rigid, 84 Shore D aliphatic polyurethane that is commonly used to make clear or tinted castings of all kinds. Note: WC-792 A/B requires post-curing. Thin section casts, less than 1/2" thick, may require in mold post-curing. See cure schedule/heat curing instructions on page 2.

PRODUCT HIGHLIGHTS:

- Exceptional clarity
- Excellent impact strength
- 15-minute standard working time with six additional work speeds available
- No odor
- Good weatherability, non-yellowing all aliphatic
- Excellent heat resistance
- UV light and oxidation resistance

PHYSICAL PROPERTIES:

Hardness, Shore D ASTM D2240	84 ± 2
Density, (g/cc) ASTM D792.....	1.1
Cubic Inches per Pound.....	26.2
Color/Appearance.....	Water clear/colorless
Tensile Strength, (psi) ASTM D638.....	8,300
Tensile Modulus, (psi) ASTM D638	2.7 x 10 ⁵
Elongation, (%) ASTM D638	20
Flexural Strength, (psi) ASTM D790	11,200
Flexural Modulus, (psi) ASTM D790.....	3.0 x 10 ⁵
Compression Strength (psi) ASTM D695-02a	10,180
Shrinkage, (in/in) linear (12"x 1/2"x 1/2")	0.006
Izod Impact, (ft-lb/in) ASTM D256.....	1.1
Heat Deflection Temperature, (@ 66 psi) ASTM D648	175 F (79 C)
Index of Refraction ASTM D542	1.49

HANDLING PROPERTIES:

Mix Ratio (by weight):

Part A	100 parts by weight
Part B	75 parts by weight

Mix Ratio (by volume):

Part A	100 parts by volume
Part B	78 parts by volume

HANDLING PROPERTIES (continued):

Specific Gravity:	
Part A	1.08
Part B	1.04
Viscosity, (cps) @ 77°F (25°C) Brookfield:	
Part A	650
Part B	750
Mixed	650 ± 50
Work Time, 100g mass @ 77°F (25°C)	15 - 20 minutes**
Demold Time @ 77°F (25°C)	16 - 24 hours

**The 15-20 minute work time is the standard product. Products with 5, 30, 60, 90, 180, and 240 minute work times are available on a special order basis.

CURE SCHEDULE/HEAT CURING:

Most of the physical properties can be achieved in 5-7 days at ambient temperature, 77°F (25°C). In order to achieve maximum physical properties, a post cure with heat is required. BJB recommends 24 hours at ambient temperature, 77°F (25°C), followed by 16 hours at 180°F (82°C). Support of the part may be required to prevent part deformation during the heat curing process.

NOTE:

The cure will be inhibited if cast against a tin catalyzed silicone RTV.

STORAGE:

Store in a cool dry place. Unopened containers will have a shelf life of 6 months from date of shipment when properly stored at room temperatures. Purge opened containers with dry nitrogen before re-sealing.

PACKAGING:

Gallon Kits.....	8 lbs. A, 6 lbs. B
5 Gallon Kits.....	40 lbs. A, 30 lbs. B
55-Gallon Drum Kits.....	400 lbs. A, 300 lbs. B

SAFETY PRECAUTIONS:

Avoid contact with skin using protective gloves and protective clothing. Repeated or prolonged contact on the skin may cause an allergic reaction. Eye protection is extremely important. Always use approved safety glasses or goggles when handling this product. Use in well-ventilated areas. Avoid breathing vapors. If exposures cannot be kept at a minimum, a respirator may be necessary in addition to ventilation. The use of a positive pressure air supplied respirator is mandatory when airborne isocyanate concentrations are “not known” or exceeds OSHA’S TWA of 0.005 ppm. Air purifying, organic cartridge type respirators are not generally recommended to use when handling this material without implementation of an end of life service program. Observe OSHA regulations for respirator use (29 CFR 1910.134). Employers are responsible for selecting the correct respirator for each situation.

IF CONTACT OCCURS:

Skin: Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. It is *not* recommended to remove resin from skin with solvents. Solvents only increase contact and dry skin. Seek qualified medical attention if allergic reactions occur.

Eyes: Immediately flush with water for at least 15 minutes. Call a physician.

Ingestion: If swallowed, call a physician immediately. Remove stomach contents by gastric suction or induce vomiting only as directed by medical personnel. Never give anything by mouth to an unconscious person.

Refer to the Material Safety Data Sheet before using this product.