

WC-788 A/B
WATER CLEAR RIGID 84 SHORE D
URETHANE CASTING SYSTEM



WC-788 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-788 A/B requires post-curing. Thin section casts, less than 1/2" thick, may require in mold post-curing. See post-cure instructions on page 2.

- Colorless with exceptional clarity
- 15-minute standard working time with five additional work speeds available
- Good weatherability
- Excellent impact strength
- No odor
- Excellent heat resistance

PHYSICAL PROPERTIES	TEST METHOD	TEST RESULTS
Hardness, Shore D	ASTM D2240	84 ± 2
Density (g/cc)	ASTM D792	1.1
Cubic Inches per Pound	N/A	26.2
Color/Appearance	Visual	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
Shrinkage (in/in) linear	12"x 1/2" x 1/2"	0.006
Izod Impact, notched (ft-lb/in)	ASTM D256	1.1
Heat Deflection Temperature @ 66psi	ASTM D648	175°F (79°C)
Index of Refraction	ASTM D648	1.49

HANDLING PROPERTIES	Part A	Part B
Mix Ratio by weight	100	75
Mix Ratio by volume	100	78
Specific Gravity @ 77°F (25°C)	1.08	1.04
Color	Colorless	Colorless
Viscosity (cps) @ 77°F (25°C) Brookfield	650	750
Mixed Viscosity (cps) @ 77°F (25°C) Brookfield	650 ± 50	
Work Time, 100g mass @ 77°F (25°C)	15 – 20 minutes*	
Demold Time @ 77°F (25°C)	16 – 24 hours	

Properties above are typical and not for specifications.

*The 15-20 minute work time is the standard in-stock product. Products with 30, 60, 90, 180 and 240 minute work times are available on a special order basis. Properties above are typical and not for specifications.

CURE SCHEDULE/HEAT CURING:

Most of the physical properties can be achieved in 5-7 days at 77°F (25°C). You may use your own post-cure schedule but the physical properties may vary from BJB's cure schedule of 1-3 hours at 77°F (25°C) followed by 16 hours at 160 °F (71). Do not exceed curing temperatures of 200°F (93°C). Support of the part may be required to prevent part deformation during the heat curing process.

NOTE:

The cure may be inhibited if casted against a tin catalyzed silicone RTV.

STORAGE AND HANDLING:

Store at ambient temperatures, 65-80°F (18-27°C). Unopened containers will have a shelf life of 6 months from date of shipment when properly stored at recommended temperatures. Purge opened containers with dry nitrogen before re-sealing.

PACKAGING	Part A	Part B	Cubic Inches per Kit
Quart Kits	2 lbs.	1.5 lbs.	92
Gallon Kits	8 lbs.	6 lbs.	366.8
5-Gallon Kits	40 lbs.	30 lbs.	1,834
55-Gallon Drum Kits	400 lbs.	300 lbs.	18,340

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.

⚠WARNING: This product can expose you to chemicals including Phenyl mercury acetate and Naphthalene, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.



Handling Guide