

WC-786 A/B WATER CLEAR RIGID 80 SHORE D URETHANE CASTING SYSTEM



WC-786 A/B produces a high impact, rigid, 80 Shore D material that is commonly used to make clear or tinted castings of all kinds. When used at room temperature castings 1/8" thick or larger can be readily cast. Castings that are less than 1/8" thick generally require pre-warming of materials, molds, and mild post-cure. Easy 1:1 by volume mix ratio for machine casting.

- Water clear with exceptional Clarity
- Impact resistant
- Good weatherability
- No odor
- 15 minute standard working time with six addition work speeds available

PHYSICAL PROPERTIES	TEST METHOD	TEST RESULTS
Hardness, Shore D	ASTM D2240	80 ± 2
Density (g/cc)	ASTM D792	1.05
Cubic Inches per Pound	N/A	26.4
Color/Appearance	Visual	Water Clear/Colorless
Tensile Strength (psi)	ASTM D638	4,000
Elongation (%)	ASTM D638	13 ± 2
Flexural Strength (psi)	ASTM D790	7,200
Flexural Modulus (psi)	ASTM D790	1.6 x 10 ⁵
Shrinkage (in/in) linear	12" x 1/2" x 1/2"	0.005
Izod Impact, notched (ft-lb/in)	ASTM D256	0.68
Heat Deflection Temperature @ 66psi	ASTM D648	145°F (62.8°C)
Compressive Strength, (psi)	ASTM D695	7,150
Compressive Modulus, (psi)	ASTM D695	2.75 x 10 ⁵

HANDLING PROPERTIES	Part A	Part B
Mix Ratio (by weight)	100	96
Mix Ratio (by volume)	100	100
Specific Gravity	1.08	1.03
Color	Colorless	Colorless
Viscosity (cps) @ 77°F (25°C) Brookfield	650	550
Mixed Viscosity (cps) @ 77°F (25°C) Brookfield	600 ± 50	
Work Time, 100g mass @ 77°F (25°C)	15 minutes*	
Demold Time @ 77°F (25°C)	6 – 8 hours	

*The 15 minute work time is the standard in-stock 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 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°C). Do not exceed curing temperature of 200°F (93°C).

NOTE:

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

ACCESSORIES:

BJB offers silicone RTV mold making materials along with a wide range of accessory items. These include de-airing agents, pigments, mold releases, and Jiffy® Mixers. Visit BJB’s website at www.bjbenterprises.com or consult a BJB representative for more information.

STORAGE AND HANDLING:

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	Part A	Part B	Cubic Inches per Kit
Quart Kits	2 lbs.	1.9 lbs.	103
Gallon Kits	8 lbs.	7.7 lbs.	414.5
5-Gallon Kits	40 lbs.	38.4 lbs.	2,069.8
55-Gallon Drum Kits	400 lbs.	384 lbs.	20,697.6

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 content by gastric suction or induce vomiting only a directed by medical personnel. Never give anything by mouth to an unconscious person.

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



Handling Guide



WC-786 Part A SDS



WC-786 Part B-15 SDS

NON-WARRANTY "Except for a warranty that materials substantially comply with the data presented in Manufacturer's latest bulletin describing the product (the basis for this substantial compliance is to be determined by the standard quality control tests generally performed by Manufacturer), all materials are sold "AS IS" and without any warranty express or implied as to merchantability, fitness for a particular purpose, patent, trademark or copyright infringement, or as to any other matter. In no event shall Manufacturer's liability for damages exceed Manufacturer's sale price of the particular quantity with respect to which damages are claimed."