

## Product Name

**WC-782 A/B**

## Water Clear Rigid 82 Shore D Urethane Casting System

### Product Description

WC-782 A/B is an impact resistant, rigid, 82 Shore D material that is commonly used to make clear or tinted castings of all kinds. Parts that are 1/8" thick or greater can be easily cast at room temperature. Thinner sections generally require pre warming of the material, molds, and a post cure.

Product highlights include: exceptional clarity, impact resistant, 15 minute working time provides the option for large pours, no odor, and good weatherability.

### Physical Properties

Hardness	Shore D	ASTM D-2240	82 ± 2
Density	g/cc	ASTM D-792	1.05
Cubic Inches Per Pound			26.4
Color/Appearance			Clear/Colourless
Tensile Strength	psi	ASTM D-638	6,650
Tensile Modulus	psi	ASTM D-638	2.6X10 <sup>5</sup>
Elongation	%	ASTM D-638	65
Flexural Strength	psi	ASTM D-790	11,000
Flexural Modulus	psi	ASTM D-790	3.2X10 <sup>5</sup>
Shrinkage	in./in. linear (12" x 1/2" x 1/2")		0.003
Izod Impact, notched	ft.-lb./in.	ASTM D-256	1.0
Heat Deflection Temperature	@ 66 psi	ASTM D-648	70°C
Compressive Strength	psi	ASTM D-695	8,350
Compressive Modulus	psi	ASTM D-695	3.5 x 10 <sup>5</sup>

### Handling Properties

Mix Ratio	by weight	Part A	100 parts by weight
		Part B	85 parts by weight
Mix Ratio	by volume	Part A	100 parts by volume
		Part B	88 parts by volume
Specific Gravity	g/cc	Part A	1.08
		Part B	1.04
Viscosity	cps @ 25°C Brookfield	Part A	600 ± 50
		Part B	550
		Mixed	650 ± 50
Colour		Part A	Clear/Colorless
		Part B	Clear/Colorless
Work Time	100 gram mass @ 25°C		15 minutes
Demold Time	@25°C		6-8 hours

## 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 160°F (71°C). Support of the part may be required to prevent part deformation during heat cure.

## Storage

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

## Notes

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

## Issue Date

24<sup>th</sup> June 2010

## Revision Number

1

## Disclaimer

The data presented in this leaflet are in accordance with the present state of our knowledge, and does not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. Recommendations for use do not constitute a warranty, either expressed or implied, of the fitness or suitability of the product for a particular purpose.

Manufactured by BJB Enterprises, Inc.

