



# WC-755 A/B

## WATER CLEAR 55 SHORE D POLYURETHANE CASTING SYSTEM

**PRODUCT DESCRIPTION:**

WC-755 A/B produces a 55 Shore D material that is commonly used to make clear or tinted castings of all kinds. When used at room temperature, castings <sup>1</sup>/<sub>8</sub>" thick or larger can be readily cast. Castings that are less than <sup>1</sup>/<sub>8</sub>" thick generally require a mild post-cure. This product may exhibit a slight yellowing or color change when exposed to direct UV light.

**PRODUCT HIGHLIGHTS:**

- Exceptional clarity
- 20 minute working time
- No odor, solvents or exudates
- Good weatherability

**PHYSICAL PROPERTIES:**

Hardness, Shore D ASTM D-2240 .....	55 ± 5
Density, (g/cc) ASTM D-792 .....	1.08
Cubic Inches Per Pound.....	26.4
Color/Appearance .....	Water clear/colorless
Tensile Strength, (psi) ASTM D-638 .....	2,780
Tensile Modulus, (psi) ASTM D-638 .....	1.4 x 10 <sup>4</sup>
Elongation, (%) ASTM D-638 .....	205
Flexural Strength, (psi) ASTM D-790 .....	290
Tear Strength, (pli) ASTM D-624.....	300
Shrinkage, (in./in.) linear ASTM D-2566 .....	0.004
Izod Impact, notched (ft.-lb./in.) ASTM D-256.....	8.6

**HANDLING PROPERTIES:**

Mix Ratio (by weight):

Part A.....	65 parts by weight
Part B.....	100 parts by weight

Mix Ratio (by volume):

Part A.....	62 parts by volume
Part B.....	100 parts by volume

Specific Gravity:

Part A.....	1.08
Part B.....	1.03

Viscosity, (cps) @ 77°F (25°C) Brookfield:

Part A.....	600 ± 50
Part B.....	740
Mixed .....	700 ± 50

**HANDLING PROPERTIES (continued):**

Work Time, (100-gram mass) @ 77°F (25°C) ..... 20 minutes  
Gel Time..... 35 minutes  
Demold Time @ 77°F (25°C) ..... 16 - 24 hours  
Cure Schedule .....5 - 7 days at R.T., or 16 hours at 150° - 180°F (66° - 82°C). See HEAT CURING, below.  
Product is sufficiently cured after one day, ambient, for general handling.

**HEAT CURING:**

Generally, for most applications, ambient temperature curing is adequate. However, maximum physical properties and heat resistance is obtained by post curing WC-755 A/B for 16 hours at 140° - 160°F (60° - 71°C), or 6 - 8 hours at 180°F (82°C). Parts may require some support during heat cure. A suggested cure schedule is 3 days at room temperature followed by 4 - 6 hours at 120° - 140°F (49° - 60°C), and an additional 16 hours at 160° - 180°F (71° - 82°C). A cure schedule in stages, as indicated, minimizes part distortion and shrinkage, while affording maximum toughness and heat resistance.

**NOTE:**

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

**STORAGE AND HANDLING:**

All materials should be kept in tightly closed containers out of contact with moist air. Stored under these conditions at temperatures of 60° - 80°F (16° - 27°C), the shelf life is 6 months from date of shipment. Part B may turn hazy or partially freeze below 65°F (18°C) storage. Warming to 80° - 90°F (27° - 32°C) will return product to a clear state.

**PACKAGING:**

Gallon Kits .....5.2 lbs. A, 8 lbs. B  
5 Gallon Kits .....26 lbs. A, 40 lbs. B  
55 Gallon Drum Kits.....260 lbs. A, 400 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 twice. 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.**

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."