



# WC-540 A/B WATER CLEAR 45 SHORE A POLYURETHANE ELASTOMER



WC-540 A/B is a two-part, water clear, colorless aliphatic based polyurethane elastomer. It is recommended for use whenever a flexible, permanently transparent elastomer is required. It is UV light and oxidation resistant and can be easily tinted or pigmented to clean bright colors. WC-540 A/B does not contain MOCA, TDI or MDA. In addition to being an excellent castable product, it also functions well as a solvent-free adhesive for bonding various substrates.

PHYSICAL PROPERTIES	TEST METHOD	RESULTS
Hardness, Shore A	ASTM D2240-04e1	45 ± 5
Density (g/cc)	ASTM D792-00	1.06
Cubic Inches per Pound	N/A	26.3
Color/Appearance	Visual	Colorless/Clear
Tensile Strength (psi)	ASTM D412-98a(2002)e1	390
Elongation (%)	ASTM D412-98a(2002)e1	300
Tear Strength (pli)	ASTM D624-00e1	43
Shrinkage (in/in) linear	ASTM D2566	0.001
Dielectric Constant, 1 MHz	ASTM D150-87	4.13
Dissipation Factor, 1 MHz	ASTM D150-87	0.095

Note: Reported physical properties are based on test specimens cured at an elevated temperature, 160°F (71°C.)

HANDLING PROPERTIES	Part A	Part B
Mix Ratio by weight	50	100
Mix Ratio by volume	48	100
Specific Gravity @ 77°F (25°C)	1.08	1.02
Color	Colorless	Colorless
Viscosity (cps) @ 77°F (25°C) Brookfield	2,115	375
Mixed Viscosity (cps) @ 77°F (25°C) Brookfield	910	
Work Time, 100g mass @ 77°F (25°C)	20 minutes	
Gel Time	30 minutes	
Demold Time @ 77°F (25°C)	8 – 12 hours	

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).

If you are using heat to accelerate the demold time, allow the part to cool down to ambient temperature before demolding.

## **NOTE:**

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

## **STORAGE:**

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.

<b>PACKAGING</b>	<b>Part A</b>	<b>Part B</b>	<b>Cubic Inches per Kit</b>
Quart Kits	1 lb.	2 lbs.	79
Gallon Kits	4 lbs.	8 lbs.	316
5-Gallon Kits	20 lbs.	40 lbs.	1,578
55-Gallon Drum Kits	200 lbs.	400 lbs.	15,780

## **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.

**⚠WARNING:** This product can expose you to chemicals including Phenyl mercury neodecanoate, 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](http://www.P65Warnings.ca.gov).

## **NOTE:**

**Refer to the Safety Data Sheet before using this product. For processing tips and guides, please visit: [learn.bjbmaterials.com](http://learn.bjbmaterials.com) to discover additional information.**