



POLYTEK® DEVELOPMENT CORP.  
BCC PRODUCTS, INC.

## Product Technical Datasheet BC-8163 Urethane Elastomer

**BC-8163** is a very low viscosity, rapid setting, rigid urethane compound. This system will cure quickly to a hard, tough, impact resistant casting. BC-8163 is non-sensitive to moisture after cure and will readily bond to itself if stage pours are required. The one-to-one volume mix ratio makes the system readily adaptable for machine mixing and dispensing. BC-8163 is recommended in applications where a "thermoplastic feel" is desired.

### Working Properties

Mix Ratio (Part A/Part B)	100 to 96 by wt. 100 to 100 by vol.
Viscosity (Brookfield @ 77°F)	Part A: 50 cps Part B: 100-150 cps
Color	Part A: Light Amber Part B: Clear
Pot Life (1 lb. mass) @ 77°F	2 min-2 1/2 mins.
Demold Time, 77°F (25°C)	20-60 minutes*
Final Cure, 77°F (25°C)	7 Days

\*Although BC-8163 cures to a demoldable hardness in about 20 minutes, the casting may exhibit brittleness. If less than one hour demold is necessary, use extreme care. BC-8163 exhibits increasing toughness during cure with a one hour room temperature cure recommended.

### Physical Properties

Specific Gravity (ASTM D792), Cured	1.07 gms/cc
Cubic Inches per Pound	25.2
Hardness (Shore D) @ 77°F	78±5
Linear Shrinkage (ASTM D2566)	.0029 in./in.
Ultimate Tensile Strength (ASTM D638)	5,600 psi
Ultimate Flexural Strength (ASTM D790)	7,875 psi
Ultimate Compressive (ASTM D695)	3,985 psi
Elongation % (ASTM D638)	3.5
Flexural Modulus (ASTM 790)	2.2 x 10 <sup>6</sup>
Deflection Temperature (ASTM D648)	135°F
Impact Strength (ASTM D256) Izod Notched	1.5 ft. lbs./in.
Thermal Coefficient of Expansion (ASTM 696) in./in./ °F	13.2 x 10 <sup>-5</sup>

\*Results obtained from a 7 day room temperature cure.

**DISCLAIMER:** The information in this bulletin and otherwise provided by Polytek® Development Corp. is considered accurate. However, no warranty is expressed or implied regarding the accuracy of the data, the results to be obtained by the use thereof, or that any such use will not infringe any patent. Before using, the user shall determine the suitability of the product for the intended use and user assumes all risk and liability whatsoever in connection therewith.

2140 Earlywood Drive, P.O. Box 327, Franklin, IN 46131  
Ph (317) 736-4090 Fax (317) 736-4872  
Web: [www.bccproducts.com](http://www.bccproducts.com) & [www.polytek.com](http://www.polytek.com)

1/27/2020