



## TC-690 A/B 90 SHORE A POLYURETHANE ELASTOMER

### PRODUCT DESCRIPTION:

TC-690 A/B is a two-component polyurethane elastomer compound. This product is a safe, easy-to-handle, room temperature mixing and curing system that contains no TDI, MDI, MDA or MOCA. TC-690 A/B is insensitive to moisture during storage and normal handling; hence, this system will make dependably good void-free parts without the foaming problems that some conventional urethane systems exhibit. The low shrinkage, superior toughness, and excellent detail reproduction of TC-690 A/B makes this system ideal for general-purpose castings and quality tooling operations. TC-690 A/B contains ultraviolet ray stabilizers to provide added protection when used in outdoor applications.

### PHYSICAL PROPERTIES:

Hardness, Shore A ASTM D-2240.....	90 ± 2
Density, (g/cc) ASTM D-792.....	1.09
Cubic Inches per Pound .....	25.9
Color/Appearance.....	Transparent pale yellow
Tensile Strength, (psi) ASTM D-412.....	1,930
Tensile Modulus (PSI) ASTM D-412:	
@ 100% strain .....	890
@ 200% strain .....	1165
@ 300% strain .....	1430
Elongation, (%) ASTM D-412.....	700
Tear Strength, (pli) ASTM D-624 .....	280
Shrinkage, (in./in.) linear ASTM D-2566.....	0.002

### HANDLING PROPERTIES:

#### Mix Ratio (by weight):

Part A .....	100 parts by weight
Part B .....	45 parts by weight

#### Mix Ratio (by volume):

Part A .....	100 parts by volume
Part B .....	44 parts by volume

#### Specific Gravity:

Part A .....	1.07
Part B .....	1.09

**HANDLING PROPERTIES (Cont'd):**

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

Part A .....	5,000
Part B .....	100
Mixed .....	4,000
Work Time, (100-gram mass) @ 77°F (25°C) .....	12 - 15 minutes
Gel Time .....	17 - 20 minutes
Demold Time @ 77°F (25°C) .....	4 - 6 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).

**STORAGE:**

Store in a cool dry place. Unopened containers of TC-690 A/B will have a shelf life of 6 months from date of shipment when properly stored under normal temperature conditions, 77°F (25°C).

**PACKAGING:**

1 Gallon kits.....	8 lbs. A, 3.6 lbs. B
5 Gallon kits.....	40 lbs. A, 18 lbs. B
55 Gallon drum kits .....	400 lbs. A, 180 lbs. B

**SAFETY PRECAUTIONS:**

Use in a well-ventilated area. 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.

**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.

**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."