

# ST-1085 A/B

## HIGH TEAR STRENGTH

### 85 SHORE A CASTABLE POLYURETHANE ELASTOMER

**PRODUCT HIGHLIGHTS:**

ST-1085 A/B is a tough, multi-purpose polyurethane elastomer, useful for many applications and performance requirements. Special product characteristics are as follows:

- Does not contain MOCA, MDA, or MDI
- Very easy to use; may be pigmented easily
- Cures at room temperature
- High tear strength and toughness
- Hardness and durability similar to high grade vulcanized rubber

**PHYSICAL PROPERTIES:**

Hardness, Shore A ASTM D2240 .....	85 ± 5
Density, (g/cc) ASTM D792 .....	1.1
Cubic Inches per Pound.....	25.7
Color / Appearance.....	Amber / Clear
Tensile Strength, (psi) ASTM D412.....	2,125
Tensile Modulus, (psi) ASTM D412	
@ 100% Strain .....	761
@ 200% Strain .....	996
@ 300% Strain .....	1,219
Elongation, (%) ASTM D412 .....	600
Tear Strength, (pli) ASTM D624.....	255
Shrinkage, (in/in) linear ASTM D2566.....	0.009

(Note: Physical properties obtained from test specimens post cured per recommended procedure.)

**HANDLING PROPERTIES:**

Mix Ratio (by weight):

Part A .....	100 parts by weight
Part B .....	55 parts by weight

Mix Ratio (by volume):

Part A .....	100 parts by volume
Part B .....	57 parts by volume

Specific Gravity @ 77°F (25°C):

Part A .....	1.09
Part B .....	1.06

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

Part A .....	6,000
Part B .....	1,060
Mixed.....	3,600

**HANDLING PROPERTIES (continued):**

Color:	
Part A .....	Pale Yellow
Part B .....	Amber
Work Time, (100-gram mass) @ 77°F (25°C).....	25 minutes
Gel Time.....	35 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).

**MOLD PREPARATION AND RELEASING:**

When ST-1085 A/B is used to reproduce molds from plaster models, or wood and other porous substrates, we would first recommend that substrate surfaces be sealed. Release agents may then be applied over the sealed surface.

**NOTE:**

Prolonged direct exposure to sunlight can affect the surface of this product. Cover molds or other products when storing outdoors. **The cure will be inhibited if cast against a tin catalyzed silicone RTV.**

**STORAGE:**

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

**PACKAGING:**

Quart kits .....	2 lbs. A, 1.1 lbs. B
Gallon kits.....	8 lbs. A, 4.4 lbs. B
5-Gallon kits .....	40 lbs. A, 22 lbs. B
55-Gallon drum kits.....	440 lbs. A, 242 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.**