



TC-818 A/B

75 SHORE D POLYURETHANE CASTING SYSTEM

TRANSPARENT CLEAR

PRODUCT DESCRIPTION:

TC-818 A/B is a very low viscosity, rapid setting, rigid urethane compound. This system will cure to a hard, tough, impact resistant casting. TC-818 A/B is non-sensitive to moisture and will readily bond to itself if stage pours are required. TC-818 A/B is recommended in applications where a "thermoplastic feel and look" is desired. Being a completely transparent system allows for unlimited color matching with no correcting for material base color, so vibrant or fluorescent colors can be easily attained.

PHYSICAL PROPERTIES:

Hardness, Shore D ASTM D-2240.....	75 ± 2
Density, (g/cc) ASTM D-792.....	1.12
Color/Appearance.....	Clear, slight yellow
Cubic Inches Per Pound	25.8
Tensile Strength, (psi) ASTM D-638.....	3,825
Tensile Modulus, (psi) ASTM D-638.....	1.31 x 10 ⁵
Elongation, (%) ASTM D-638.....	11
Flexural Strength, (psi) ASTM D-790.....	5,950
Flexural Modulus, ASTM D-790.....	1.57 x 10 ⁵
Shrinkage, (in./in.) linear 12" x 1/2" x 1/2"	0.01
Izod Impact, notched (ft.-lb./in.) ASTM D-256	0.56
Heat Deflection Temperature ASTM D-648:	
@ 66 psi.....	150°F (66°C)
@ 264 psi.....	130°F (54°C)

HANDLING PROPERTIES:

Mix Ratio (by weight):

Part A	100 parts by weight
Part B	100 parts by weight

Mix Ratio (by volume):

Part A	85 parts by volume
Part B	100 parts by volume

Specific Gravity:

Part A	1.15
Part B	0.99

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

Part A	425
Part B	250
Mixed.....	350

HANDLING PROPERTIES (continued):

Color:

Part A	Clear/yellow
Part B	Clear/colorless
Work Time, (100-gram mass) @ 77°F (25°C)	2 minutes
Demold Time @ 77°F (25°C)	30 minutes*

*Although TC-818 A/B cures to a demoldable hardness in about 30 minutes at room temperature, sections less than 1/8" may require more time or elevated mold temperatures to maintain stability when demolded. If molds with less than 1/8" wall thickness are pre-heated to 100°-120°F (38°-49°C) demold will be accelerated.

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 180°F (82°C). Support of the part may be required to prevent part deformation during heat cure.

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:

Gallon kits	8 lbs. A, 8 lbs. B
5 Gallon kits	40 lbs. A, 40 lbs. B
Drum kits	450 lbs. A, 450 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.