



SHORE D SEMI-RIGID URETHANES

"Dedicated to QUALITY, SERVICE, SAFETY, and INNOVATION"

TC-9445 A/B CASTABLE HIGH PERFORMANCE 45 SHORE D POLYURETHANE ELASTOMER

PRODUCT DESCRIPTION:

TC-9445 A/B is a two-component urethane casting compound that is specifically formulated for high abrasion and impact resistance. It is recommended for use in the casting of highly wear-resistant parts and linings. This product is a safe, easy-to-handle, room temperature mixing and curing system that does not contain TDI, MDI, MDA, or MOCA. TC-9445 A/B is relatively insensitive to typical environmental moisture and will make good void-free parts. Because of this product's exceptional toughness and abrasion resistance, castings made with TC-9445 A/B are particularly suitable for mining and mineral process industries.

PRODUCT HIGHLIGHTS:

- High impact resistance
- Low viscosity
- Exceptionally tough, abrasion resistant
- Contains no TDI, MDI, MDA, OR MOCA
- Easy to handle
- Room temperature mixing and curing
- Mercury free

PHYSICAL PROPERTIES:

Hardness, Shore D ASTM D 2240-04e1	45 ± 5
Density, (g/cc) ASTM D 792-00	1.10
Cubic Inches per Pound.....	25.8
Color/Appearance.....	Amber/Transparent
Tensile Strength, (psi) ASTM D 412-98a (2002)e1	2,803
Tensile Modulus, (psi) ASTM D 412-98a (2002)e1	1.83 x 10 ⁴
Modulus @ 100% Elongation, (psi) ASTM D 412-98a (2002)e1	1,654
Modulus @ 200% Elongation, (psi) ASTM D 412-98a (2002)e1	2,353
Elongation, (%) ASTM D 412-98a (2002)e1.....	350
Tear Strength, (pli) ASTM D 624-00e1.....	297
Shrinkage, (in/in) linear ASTM D 2566-.....	0.0015

HANDLING PROPERTIES:

Mix Ratio (by weight):

Part A	96 parts by weight
Part B	100 parts by weight

Mix Ratio (by volume):

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

HANDLING PROPERTIES (Continued):

Specific Gravity:	
Part A	1.05
Part B	1.10
Viscosity, (cps) @ 77°F (25°C) Brookfield:	
Part A	6,640
Part B	125
Mixed	1,265
Color:	
Part A	Clear/Colorless
Part B	Amber
Work Time (100 gram mass) @ 77°F (25°C)	25 minutes
Gel Time	40 minutes
Demold Time, 77°F (25°C).....	6-8 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 have a shelf life of 6 months from date of shipment when properly stored at room temperatures. Purge opened containers with dry nitrogen before re-sealing.

PACKAGING:

Gallon kits.....	7.7 lbs. A, 8 lbs. B
5-Gallon kits	38.4 lbs. A, 40 lbs. B
55-Gallon drum kits.....	384 lbs. A, 400 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.