



F-90 A/B

HIGH PERFORMANCE 90 SHORE A POLYURETHANE ELASTOMER

PRODUCT DESCRIPTION:

F-90 A/B is a two-component urethane casting compound that is specifically formulated for high abrasion and impact resistance. It is recommended for use for the production 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 MDI, MDA, or MOCA. F-90 A/B is relatively insensitive to typical environmental moisture and will make good void-free parts without the problems that some conventional urethane systems exhibit. Because of this product's exceptional toughness and abrasion resistance, castings made with F-90 A/B are particularly suitable for the mineral process and metal forming industries.

PRODUCT HIGHLIGHTS:

- Exceptional abrasion and impact resistant
- Contains no MDI, MDA, OR MOCA
- Easy to handle
- Easily tinted to any color
- Room temperature mixing and curing
- Short demold times allows for production parts

PHYSICAL PROPERTIES:

| | |
|--|------------|
| Hardness, Shore A ASTM D-2240 | 90 ± 2 |
| Density, (g/cc) cured ASTM D-792 | 1.08 |
| Cubic Inches Per Pound | 25.6 |
| Color/Appearance..... | Tan/Opaque |
| Tensile Strength, (psi) ASTM D-412..... | 3,000 |
| Elongation, (%) ASTM D-412..... | 440 |
| Tear Strength, (pli) ASTM D-624 | 300 |
| Shrinkage, (in./in.) linear ASTM D-2566..... | 0.007 |

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 | 56 parts by volume |

Specific Gravity:

| | |
|--------------|------|
| Part A | 1.09 |
| Part B | 1.07 |

HANDLING PROPERTIES (continued):

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

| | |
|---------------------|-------|
| Part A | 6,000 |
| Part B | 1,800 |
| Initial Mixed | 5,000 |

Color:

| | |
|--------------|-------|
| Part A | Amber |
| Part B | Tan |

Work Time, 100g mass @ 77°F (25°C) 7 - 9 minutes
Gel Time 10 - 12 minutes
Demold Time @ 77°F (25°C)..... 1 - 1.5 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 will 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:

| | |
|--------------------------|------------------------|
| 1 Quart kits | 2 lbs. A, 1.1 lbs. B |
| 1 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.