



# RIGID FILLED & UNFILLED URETHANES

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

## TC-1630 A/B ULTRACAST II

### PRODUCT DESCRIPTION:

TC-1630 A/B Ultracast is a very hard, tough, fast setting filled polyurethane casting resin system which is ideal for a wide range of casting jobs such as pattern duplication, vacuum forming tools, tracing tools, foundry core boxes, wax casting molds, and general casting molds. This system is frequently used to pour into alginate to produce cores for foam latex molds.

### PRODUCT HIGHLIGHTS:

- Foam Latex Molds
- Excellent Heat Resistance to 250°F (121°C)
- Very Low Shrinkage, Low Exotherm
- Short Demold Time
- Excellent Detail Reproduction
- Low Viscosity
- Non-mercury based catalyst system

### PHYSICAL PROPERTIES:

Hardness, Shore D ASTM D2240.....	84±2
Density, (g/cc) ASTM D792 .....	1.80
Cubic Inches per Pound .....	16.5
Color/Appearance .....	Gray/Opaque
Flexural Strength, (psi) ASTM D790.....	6,221
Compressive Strength, (psi) ASTM D695.....	8,400
Shrinkage, (in/in) linear ASTM D2566 .....	0.002

### HANDLING PROPERTIES:

Mix Ratio (by weight):	
Part A.....	100 parts by weight
Part B .....	100 parts by weight
Mix Ratio (by volume):	
Part A.....	93 parts by volume
Part B .....	100 parts by volume
Specific Gravity:	
Part A.....	1.73
Part B .....	1.60
Viscosity, cps @ 77°F (25°C) Brookfield:	
Part A.....	900
Part B .....	1,300
Mixed.....	1,100
Color:	
Part A.....	Black
Part B .....	White

**HANDLING PROPERTIES (continued):**

Work Time @ 77°F (25°C) .....5-6 minutes  
Gel Time .....7-8 minutes  
Demold Time .....1 hour

TC-1630 A/B can usually be used an hour or two after casting, even in thin sections of 1/4" or less. It also may be cast very thick (8-10" or more) without creating excessive exotherm. Thick sections (e.g. over 4 inches) can generate somewhat increased shrinkage. To avoid this problem, casting around a displacement core or stage pouring is recommended.

TC-1630 A/B can be cast into all dry mold materials such as metal, plastic, urethane, RTV, sealed wood or plaster. Plaster molds should be sealed with RF-5124 or an appropriate sealer, followed by two coats of a paste wax such as Meguiar's # 87.

**MIXING INSTRUCTIONS:**

TC-1630 A/B settles on standing but is easily remixed. Thoroughly mix cans A and B separately, preferably with a Jiffy Mixer. Then combine equal parts of A and B by weight. Mix thoroughly for not more than 30 seconds and pour promptly. Do not mix in the original containers. Polyethylene mixing pails are excellent and may be reused. Be sure all material on the sides and bottom are well mixed. After each use, cans should be purged with dry nitrogen and tightly sealed to prevent moisture in the air from reacting with the contents.

**CAUTION:**

**Platinum cure silicone rubbers will not cure against the TC-1630 A/B.** For further information, contact BJB's technical staff for recommended products and procedures.

**STORAGE:**

Store in a cool dry place. Unopened containers will have a shelf life of 3 months form date of shipment when properly stored at room temperatures. Purge opened containers with dry nitrogen before re-sealing.

**PACKAGING:**

1 Gallon Kits.....10 lbs. A, 10 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.**