TC-880 A/B
RIGID 80 SHORE D URETHANE CASTING SYSTEM

PRODUCT DESCRIPTION:

TC-880 A/B produces a high impact rigid 80 Shore D material that is commonly used to make large computer housings, models of all kinds and artwork components. It provides a working time of 4 - 5 minutes.

PRODUCT HIGHLIGHTS:

- High impact rigid material
- Convenient mixing ratio: 1 to 1 parts by weight
- No odor; No exudates
- Will prolong the life of a silicone mold; many parts/cycles are achieved
- Problem free, fast setting product; offsets most oil filled fast casts
- Relatively moisture insensitive

TYPICAL PRODUCT USES:

- Computer Housings
- Models of all kinds
- Artwork components
- Architectural models
- Gears, wheels, fans
- Transportation cases
- Miniatures, movie props, parts
- Simulating injection molded pieces

PHYSICAL PROPERTIES:

Hardness, Shore D ASTM D-2240	80 ± 2
Specific Gravity, (g/cc) cured ASTM D-792	1.12
Cubic Inches Per Pound	24.8
Color/Appearance	Cream
Tensile Strength, (psi) ASTM D-638	5,500
Tensile Modulus, (psi) ASTM D-638	2.1×10^5
Elongation, (%) ASTM D-638	15.5
Flexural Strength, (psi) ASTM D-790	7,100
Flexural Modulus, (psi) ASTM D-790	2.0×10^5
Shrinkage, (in./in.) (3/8" depth) ASTM D-2566	0.007
Izod Impact, (ft.-lb./in.) ASTM D-256	0.75
Compressive Strength, (psi) ASTM D-695	85,000

Note: Reported physical properties based on elevated temperature cured test specimens.

HANDLING PROPERTIES:

For more information call BJB Enterprises, Inc. (714) 734-8450 Fax (714) 734-8929

Mix Ratio (by weight):
- Part A ..... 100 parts by weight
- Part B ..... 100 parts by weight

Mix Ratio (by volume):
- Part A ..... 90 parts by volume
- Part B ..... 100 parts by volume

Specific Gravity (g/cc):
- Part A 1.18
- Part B 1.05

Mixed Viscosity, (cps) @ 77°F (25°C) Brookfield ..... 250 ± 10

Color:
- Part A ..... Clear faint yellow
- Part B ..... Hazy, Off white

Work Time, (100-gram mass) @ 77°F (25°C) ..... 4 - 5 minutes

Demold Time @ 77°F (25°C) ..... 3 - 4 hours

Cure Schedule ..... For maximum physical properties the material should be post cured at 160°F (71°C) for 6 hours. This gives an HDT of 140°F (60°C).

HEAT CURING:

Enhanced physical properties can be achieved by post-curing TC-880 A/B parts for a period of 4 - 6 hours at a minimum of 150°F (66°C) and to a maximum of 175°F (79°C). Six hours at 160°F (71°C) will provide a final heat distortion temperature @ 66 psi of 140°F (60°C). Parts generally should be supported during post-cures.

VACUUM DEGASSING:

It is advisable whenever possible to evacuate entrapped air prior to casting this system. The use of de-airing agent can speed the process. BJB's AF-4 antifoam works best as the de-airing agent; also, dry nitrogen is available in aerosol cans. In conjunction with these support products, BJB offers pigments in a wide variety of colors and stainless steel mixers called “Jiffy®Mixers”. If help is required call BJB for assistance. For additional information on the use of this product, refer to BJB Guidelines for Handling Polyurethane Products.

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:
- Gallon Kits ..... 8 lbs. A, 8 lbs. B
- 5 Gallon Kits ..... 40 lbs. A, 40 lbs. B
- 55-Gallon 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.

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