



RIGID-CAST 8017 A/B

80 SHORE D URETHANE CASTING SYSTEM

FOR HIGH IMPACT AND FLEXURAL STRENGTH

PRODUCT DESCRIPTION:

RIGID-CAST 8017 A/B is a rigid, 80 Shore D, two-component high impact and high strength castable urethane. RC-8017 A/B has been designed to meet a wide variety of part making applications that range from electronic enclosures to mechanical parts. This system is very light in color and its translucency makes it extremely easy to color. RC-8017 A/B can also be demolded in one hour or less, depending on part thickness and mold conditions.

The RC-8017 A/B has a work time of approximately 60 seconds and meter mix dispensing equipment is recommended for processing. BJB offers meter mix dispensing equipment ranging from hand operated static mix systems to air-power operated production systems. Call BJB's technical representatives to provide processing information assistance.

PRODUCT HIGHLIGHTS:

- ◆ Convenient 1:1 by volume mix ratio for automated and manual dispensing equipment
- ◆ High impact resistance and flexural strength
- ◆ Low viscosity and rapid flow out for thin wall parts

PHYSICAL PROPERTIES:

Hardness, Shore D ASTM D-2240.....	80 ± 2
Density, (g/cc) ASTM D-792	1.12
Cubic Inches per Pound	24.7
Color/Appearance.....	Translucent Colorless
Tensile Strength, (psi) ASTM D-638	6,800
Tensile Modulus, (psi) ASTM D-638	2.7 x 10 ⁵
Elongation, (%) ASTM D-638	13.5
Flexural Strength, (psi) ASTM D-790.....	8,270
Flexural Modulus, (psi) ASTM D-790.....	2.2 x 10 ⁵
Shrinkage, (in./in.) linear (12" x 1/2" x 1/4"):	
7-day ambient cure.....	0.002
Post-cured, (see post-cure note).....	0.004
Izod Impact, notched (ft.-lb./in) ASTM D-256.....	1.05
Heat Deflection Temperature ASTM D-648:	
(@ 66 psi)	160°F (71°C)
(@ 264 psi).....	140°F (60°C)

(Note: Physical properties obtained from test specimens post cured per recommended procedure.)

HANDLING PROPERTIES:

Mix Ratio (by weight):	
Part A.....	100 parts by weight
Part B.....	88 parts by weight
Mix Ratio (by volume):	
Part A.....	100 parts by volume
Part B.....	100 parts by volume
Specific Gravity:	
Part A.....	1.19
Part B.....	1.04
Viscosity (cps) Brookfield:	
Part A @ 77°F (25°C).....	550
Part B @ 77°F/110°F (25°C/43°C).....	1,300/350
Mixed @ 77°F/110°F (25°C/43°C).....	900/400
Color:	
Part A.....	Pale Yellow
Part B.....	Colorless
Work Time/Gel Time (100 g mass) @ 77°F (25°C).....	60 ± 5 seconds
Demold Time (closed mold, 2.2 mm thick).....	40 - 60 minutes

RECOMMENDED PROCESSING PROCEDURES:

Both A & B components need to be pre-warmed and pre-blended prior to use. The A component should be conditioned to 80° - 90°F (27° - 32°C). Pre-warm the B component to 110° - 125°F (43° - 52°C) and thoroughly mix, stirring to the bottom of the container until the material becomes uniform in appearance. Stir both sides to blend at the recommended temperatures *prior* to combining.

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 temperatures. Purge opened containers with dry nitrogen before re-sealing. Electric band heaters for material feed containers may be required during cold weather periods.

PACKAGING:

1 Gallon kits.....	8 lbs. A, 7.2 lbs. B
5 Gallon kits.....	40 lbs. A, 36 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.

NON-WARRANTY "Except for a warranty that materials substantially comply with the data presented in Manufacturer's latest bulletin describing the product (the basis for this substantial compliance is to be determined by the standard quality control tests generally performed by Manufacturer), all materials are sold "AS IS" and without any warranty express or implied as to merchantability, fitness for a particular purpose, patent, trademark or copyright infringement, or as to any other matter. In no event shall Manufacturer's liability for damages exceed Manufacturer's sale price of the particular quantity with respect to which damages are claimed."