

## TC-852 A/B

### 78 SHORE D POLYURETHANE CASTING SYSTEM



TC-852 A/B produces a high impact, rigid 78 Shore D material that is commonly used to make computer housings, models of all kinds, artwork, and can also be used for electronic component encapsulation. TC-852 A/B is an excellent hand-castable product that produces parts with heat deflection temperatures up to 220°F (104°C).

- Non-mercury based catalyst system
- High impact rigid material
- 1 – 2 hour demold time
- Low viscosity
- RoHS compliant
- Odorless, clean white color
- Excellent for vacuum or pressure casting
- Exhibits exceptional high heat distortion temperature

PHYSICAL PROPERTIES	TEST METHOD	TEST RESULTS
Hardness, Shore D	ASTM D2240	78 ± 2
Density (g/cc)	ASTM D792	1.15
Cubic Inches per Pound	N/A	25.2
Color/Appearance	Visual	Off White/Opaque
Tensile Strength (psi)	ASTM D638	7,000
Tensile Modulus (psi)	ASTM D638	2.4 x 10 <sup>5</sup>
Elongation (%)	ASTM D638	12
Flexural Strength (psi)	ASTM D790	10,500
Flexural Modulus (psi)	ASTM D790	2.7 x 10 <sup>5</sup>
Shrinkage (in/in) linear	12"x 1/2" x 1/2"	0.004
Izod Impact, notched (ft-lb/in)	ASTM D256	0.7
Heat Deflection Temperature @ 66psi	ASTM D648	220 ± 5°F (104.4 ± 3°C)
Heat Deflection Temperature @ 264psi	ASTM D648	200 ± 5°F (93.3 ± 3°C)

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

HANDLING PROPERTIES	Part A	Part B
Mix Ratio (by weight)	100	50
Mix Ratio (by volume)	100	53
Specific Gravity @77°F (25°C)	1.12	1.05
Color	Yellow	Colorless
Viscosity (cps) @77°F (25°C) Brookfield	70	1,450
Mixed Viscosity (cps) @77°F (25°C) Brookfield	250	
Work Time, 100g mass @ 77°F (25°C)	4.5 minutes	
Gel Time	5 minutes	
Demold Time @ 77°F (25°C)	1 – 2 hours	

Properties above are typical and not for specifications.

## **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 recommended. 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.

## **NOTE:**

TC-852 A/B with its non-mercury catalyst system does exhibit greater sensitivity to moisture than do similar products that use mercury-containing catalysts. TC-852 A/B should be stored at ambient temperature and the TC-852 “B” component may require vacuum de-airing prior to combining it with the “A” component. Evacuation of the mixed components is mandatory in order to achieve best results. If further information is required, please contact BJB’s technical staff for assistance.

## **STORAGE:**

Store at ambient temperatures, 65-80°F (18-27°C). Unopened containers will have a shelf life of 6 months from date of shipment when properly stored at recommended temperatures. Purge opened containers with dry nitrogen before re-sealing.

PACKAGING	Part A	Part B	Cubic Inches per Kit
Gallon Kits	8 lbs.	4 lbs.	302
5-Gallon Kits	40 lbs.	20 lbs.	1,512
55-Gallon Drum Kits	400 lbs.	200 lbs.	15,120

## **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.**

**⚠WARNING:** This product can expose you to chemicals including 1,2-Benzenedicarboxylic, di-C9-11-branched alkyl esters, C10-rich, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).



Handling Guide



TC-852 Part A SDS



TC-852 Part B SDS