



TC-891 A/B

RIGID 80 SHORE D URETHANE CASTING SYSTEM



TC-891 A/B incorporates a non-mercury based catalyst system that produces a tough 80 shore D material with a 12-minute work time. This system can be used to hand pour large electronic housings, models of all kinds, and point of purchase items. This system is also available in a 20-minute work time (TC-892), and a 5-minute work time (TC-890).

- Non-mercury
- Convenient mixing ratio: 1 to 1 parts by weight
- Demold time: 3-4 hours at ambient temperature in a silicone rubber mold (1/8" thick section)
- RoHS compliant
- Low viscosity, flows easily

PHYSICAL PROPERTIES	TEST METHOD	RESULTS
Hardness, Shore D	ASTM D2240	80 ± 2
Density (g/cc)	ASTM D792	1.14
Cubic Inches per Pound	N/A	25
Color/Appearance	Visual	Off White/Opaque
Tensile Strength (psi)	ASTM D638	7,600
Tensile Modulus (psi)	ASTM D638	2.4 x 10 ⁵
Elongation (%)	ASTM D638	10
Flexural Strength (psi)	ASTM D790	10,000
Flexural Modulus (psi)	ASTM D790	2.5 x 10 ⁵
Shrinkage (in/in) linear	12"x1/2"x1/2"	0.003
Izod Impact, notched (ft-lb/in)	ASTM D256	0.7
Heat Deflection Temperature @ 66 psi	ASTM D648	195°F (90.6°C)
Heat Deflection Temperature @ 264 psi	ASTM D648	177°F (80.6°C)

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

HANDLING PROPERTIES	Part A	Part B
Mix Ratio by weight	100	100
Mix Ratio by volume	88	100
Specific Gravity @ 77°F (25°C)	1.18	1.04
Color	Yellow	White
Viscosity (cps) @ 77°F (25°C) Brookfield	325	830
Mixed Viscosity (cps) @ 77°F (25°C) Brookfield	725	
Work Time, 100g mass @ 77°F (25°C)	12 minutes	
Gel Time	17 minutes	
Demold Time @ 77°F (25°C)	3 – 4 hours	

Properties above are typical and not for specifications.

IMPORTANT MIXING DIRECTION:

It is important to remix the "B" components thoroughly prior to each use.

CURE SCHEDULE/HEAT CURING:

Most of the physical properties can be achieved in 5-7 days at 77°F (25°C). You may use your own post-cure schedule but the physical properties may vary from BJB's cure schedule of 1-3 hours at 77°F (25°C) followed by 16 hours at 180°F (82°C). Do not exceed curing temperatures of 200°F (93°C). Support of the part may be required to prevent part deformation during the heat curing process.

NOTE:

It is advisable whenever possible to evacuate entrapped air prior to casting this system. The use of a de-airing agent can speed up the process. BJB's AF-7 antifoam works best as the de-airing agent. 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 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
Quart Kits	2 lbs.	2 lbs.	100
Gallon Kits	8 lbs.	8 lbs.	400
5-Gallon Kits	40 lbs.	40 lbs.	2,000

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.

⚠WARNING: This product can expose you to chemicals including 1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

NOTE:

Refer to the Safety Data Sheet before using this product. For processing tips and guides, please visit: learn.bjbmaterias.com to discover additional information.