TC-895 A/B BLACK

RIGID 84 SHORE D HIGH HEAT RESISTANT POLYURETHANE CASTING SYSTEM

PRODUCT DESCRIPTION:

TC-895 A/B BLACK is a RoHS compliant, non-mercury based catalyst polyurethane system that produces a tough 84 shore D material. This system has an extremely high heat deflection temperature which in some cases can be post cured without having to use fixtures.

PRODUCT HIGHLIGHTS:

- High heat resistance
- Non-mercury
- RoHS compliant
- Working time of 6 - 7 minutes

PHYSICAL PROPERTIES	TEST METHOD	CURE SCHEDULE 1*	CURE SCHEDULE 2*
Hardness, Shore D	ASTM D2240-04el	84±2	84±2
Density (g/cc)	ASTM D792-00	1.22	1.22
Cubic Inches per Pound	N/A	24	24
Color/Appearance	Visual	Black	Black
Tensile Strength (psi)	ASTM D638-03	10,300	10,400
Tensile Modulus (psi)	ASTM D638-03	2.93×10^5	2.87×10^5
Elongation (%)	ASTM D638-03	9.1	9.8
Flexural Strength (psi)	ASTM D790-03	12,700	12,200
Flexural Modulus (psi)	ASTM D790-03	3.17×10^5	3.03×10^5
Shrinkage (in/in) linear	12"x ½" x ½"	0.008	0.005
Izod Impact, notched (ft-lb/in)	ASTM D256-05	0.88	0.95
Heat Deflection Temperature @ 66psi	ASTM D648-04	340°F (171°C)	290°F (143°C)
Heat Deflection Temperature @ 264psi	ASTM D648-04	218°F (103°C)	213°F (101°C)
Coefficient of Thermal Expansion (in/in/F°)	ASTM E831-06	73.1×10^{-6}	TBD

CURE SCHEDULE 1:

To achieve maximum physical properties, the material should be preconditioned to 77°F (25°C) and the mold approximately to 120°F (49°C). After casting the material the mold should be placed into a 150°F (66°C) oven and left for 1 hour. After 1 hour the part can be demolded and then post cured with heat for 16 hours at 180°F (82°C). Support of the part in some cases may be required to prevent part deformation during the heat curing process.

CURE SCHEDULE 2:
Most of the physical properties can be achieved when casting this product at room temperature then followed with a post cure. Precondition the material and molds to 77°F (25°C). After casting, leave the part at room temperature for 16 – 24 hours followed with a post cure for an additional 16 hours at 180°F (82°C). Support of the part in some cases may be required to prevent part deformation during the heat curing process.
Note: To obtain higher heat deflection temperatures and faster demold times, it is advised to use heat during the casting process.

HANDLING PROPERTIES		
	Part A	Part B
Mix Ratio (by weight or volume)	100	50
Specific Gravity	1.16	1.16
Color	Pale Yellow	Black
Viscosity (cps) @77°F (25°C) Brookfield	1,000	650
Mixed Viscosity (cps) @77°F (25°C) Brookfield	850	
Work Time, 100g mass @ 77°F (25°C)	6-7 minutes	
Gel Time	7-8 minutes	
Demold Time @ 77°F (25°C)	5-6 hours	
Demold Time @ 150°F (66°C)	1 hour	

NOTE #1:
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-4 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". For additional information on the use of this product, refer to BJB Guidelines for Handling Polyurethane Products. If further information is required, please call BJB's technical staff for assistance.

NOTE #2:
The natural color of TC-895 A/B is a translucent pale yellow. When the cured material is exposed to direct sunlight or strong UV light, the material will turn to an orange color within approximately 2 hours. TC-895 A/B can be special ordered in its natural color. Contact BJB's technical staff for assistance.

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	Part A	Part B
Gallon Kits	8 lbs.	4 lbs.
5-Gallon Kits	40 lbs.	20 lbs.
55-Gallon Drum Kits	400 lbs.	200 lbs.

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.

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