



TC-804 Jet Black A/B  
75 SHORE D URETHANE  
CASTING SYSTEM



TC-804 Jet Black A/B is a user friendly, low viscosity, 75D rigid urethane plastic that cures to a Jet Black color. This system features a convenient 1:1 by volume mixing ratio, 7-8 minutes working time, good heat resistance, and low moisture sensitivity producing tough, non-brittle castings. Excellent at reproducing fine details without trapping air bubbles. Great for taxidermy, prototypes, model making, rotocasting, and parts of all kinds. For best results, we recommend evacuating TC-804 Jet Black.

- RoHS/REACH Compliant
- 30-60 minute demold time
- 7-8 minute work time
- Low viscosity

PHYSICAL PROPERTIES	TEST METHOD	TEST RESULTS
Hardness, Shore D	ASTM D2240-04e1	75 ± 5
Density (g/cc)	ASTM D792-00	1.131
Cubic Inches per Pound	N/A	25.54
Color/Appearance	Visual	Black
Tensile Strength (psi)	ASTM D638-03	6,000
Tensile Modulus (psi)	ASTM D638-03	2.1 x 10 <sup>5</sup>
Elongation (%)	ASTM D638-03	22
Flexural Strength (psi)	ASTM D790-03	8,750
Flexural Modulus (psi)	ASTM D790-03	2.3 x 10 <sup>5</sup>
Shrinkage (in/in) linear	12"x 1/2" x 1/2"	0.002
Izod Impact, notched (ft-lb/in)	ASTM D256-05	0.6
Heat Deflection Temperature @ 66 psi	ASTM D648-04	170°F (76.7°C)
Heat Deflection Temperature @ 264 psi	ASTM D648-04	155°F (68.3°C)
Dielectric Constant, 1 MHz	ASTM D150-87	3.292
Dissipation Factor, 1 MHz	ASTM D150-87	0.0117

\*Note: Reported physical properties are based on test specimens cured 2-3 hours at room temperature then 16 hours at 160°F (71°C).

†Shrink test specimens are cured for 24 hours at room temperature and then 16 hours at 160°F (71°C).

HANDLING PROPERTIES	Part A	Part B
Mix Ratio by weight	100	90
Mix Ratio by volume	100	100
Specific Gravity @ 77°F (25°C)	1.138	1.028
Color	Pale Yellow	Black
Viscosity (cps) @ 77°F (25°C) Brookfield	70	600
Mixed Viscosity (cps) @ 77°F (25°C) Brookfield	200	
Work Time, 100g mass @ 77°F (25°C)	7 – 8 minutes	
Gel Time	8 – 9 minutes	
Demold Time @ 77°F (25°C)	30 – 60 minutes	

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 77°F (25°C). You may use your own post-cure schedule but the physical properties may vary from BJB’s cure schedule of 2-3 hours at 77°F (25°C) followed by 16 hours at 160°F (71°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.

**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.

<b>PACKAGING</b>	<b>Part A</b>	<b>Part B</b>	<b>Cubic Inches per Kit</b>
Quart Kits	2 lbs.	1.8 lbs.	97
Gallon Kits	8 lbs.	7.2 lbs.	388
5 Gallon Kits	40 lbs.	36 lbs.	1,941
55-Gallon Drum Kits	440 lbs.	396 lbs.	21,351

**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 acid, 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

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."