



1130 International Pkwy
Fredericksburg, VA 22406
540-286-2266
www.artcorp.com



RIGID FILLED & UNFILLED URETHANES

"Dedicated to QUALITY, SERVICE, SAFETY, and INNOVATION"

TC-885 FR REV 1

RIGID 78 SHORE D POLYURETHANE CASTING SYSTEM

FIRE RETARDANT

PRODUCT DESCRIPTION:

TC-885 A/B FR REV 1 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 enclosures. It provides a working time of 6 minutes.

PRODUCT HIGHLIGHTS:

- Non-mercury based catalyst system
- RoHS compliant
- One to two hour demold time
- Excellent for vacuum or pressure casting
- Low viscosity
- UL 94 V0 Flammability Rating

PHYSICAL PROPERTIES:

Hardness, Shore D ASTM D2240-04e1.....	78 ± 2
Density, (g/cc) ASTM D792-00.....	1.26
Cubic Inches per Pound.....	22.6
Color/Appearance.....	Off White/Opaque
Tensile Strength, (psi) ASTM D638-03.....	5,950
Tensile Modulus, (psi) ASTM D638-03.....	2.24 x 10 ⁵
Elongation, (%) ASTM D638-03.....	20
Flexural Strength, (psi) ASTM D790-03.....	9,600
Flexural Modulus, (psi) ASTM D790-03.....	2.65 x 10 ⁵
Shrinkage, (in/in) linear 12"x 1/2"x 1/2".....	0.0007
Izod Impact, notched (ft-lb/in) ASTM D256-05.....	0.57
Heat Deflection Temperature, ASTM D648-04:	
66 psi.....	190°F (88°C)
264 psi.....	173°F (78°C)
Dielectric Constant, @ 1 MHz ASTM D150-87.....	3.342
Dissipation Factor, @ 1 MHz ASTM D150-87.....	0.016
Ball Pressure Test, (mm) 167°F (75°C) IEC 60695-10-2.....	1.2 - 1.3

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

HANDLING PROPERTIES:

Mix Ratio (by weight):

Part A.....	100 parts by weight
Part B.....	85 parts by weight

Mix Ratio (by volume):

Part A.....	100 parts by volume
Part B.....	68 parts by volume

HANDLING PROPERTIES (continued):

Specific Gravity @ 77°F (25°C):	
Part A.....	1.10
Part B.....	1.38
Viscosity, (cps) @ 77°F (25°C) Brookfield:	
Part A.....	75
Part B.....	3,200
Mixed.....	310
Color:	
Part A.....	Pale yellow
Part B.....	White
Work Time, (100 gram mass) @ 77°F (25°C).....	6 minutes
Gel Time	7 minutes
Demold Time @ 77°F (25°C)	1 - 2 hours

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.

VACUUM DE-GASSING / DE-AIRING:

It is advisable to evacuate entrapped air prior to casting this system. The use of a de-airing agent, (BJB's AF-7) will aid in this process when either de-airing the combined A/B mixture or when de-airing the "A" and "B" components separately.

NOTE:

TC-885 A/B FR REV 1 with its non-mercury catalyst system does exhibit greater sensitivity to moisture than do similar products that use mercury-containing catalysts. If further information is required, please 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 the date of shipment when properly stored at room temperature. Purge opened containers with dry nitrogen before re-sealing.

PACKAGING:

Gallon Kits	8 lbs. A, 6.8 lbs. B
5 Gallon Kits	40 lbs. A, 34 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.