



TC-885 FR REV 1

RIGID 78 SHORE D POLYURETHANE CASTING SYSTEM

FIRE RETARDANT

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, artwork, electronic component enclosures and all types of parts requiring flame retardant characteristics. It provides a working time of 6 minutes.

- Non-mercury based catalyst system
- RoHS/REACH compliant
- One to two hour demold time
- Excellent for vacuum or pressure casting
- Low viscosity
- UL 94 V0 Listed (File# E174527)

PHYSICAL PROPERTIES	TEST METHOD	RESULTS
Hardness, Shore D	ASTM D2240-04e1	78 ± 2
Density (g/cc)	ASTM D792-00	1.26
Cubic Inches per Pound	N/A	22.6
Color/Appearance	Visual	Off White/Opaque
Tensile Strength (psi)	ASTM D638-03	5,950
Tensile Modulus (psi)	ASTM D638-03	224,000
Elongation (%)	ASTM D638-03	20
Flexural Strength (psi)	ASTM D790-03	9,600
Flexural Modulus (psi)	ASTM D790-03	265,000
Shrinkage (in/in) linear	12"x1/2"x1/2"	0.0007
Izod Impact, notched (ft-lb/in)	ASTM D256-05	0.57
Heat Deflection Temperature @ 66 psi	ASTM D648-04	190°F (87.8°C)
Heat Deflection Temperature @ 264 psi	ASTM D648-04	173°F (78.3°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	Part A	Part B
Mix Ratio by weight	100	85
Mix Ratio by volume	100	68
Specific Gravity @ 77°F (25°C)	1.10	1.38
Color	Pale Yellow	White
Viscosity (cps) @ 77°F (25°C) Brookfield	75	3,200
Mixed Viscosity (cps) @ 77°F (25°C) Brookfield	310	
Work Time, 100g mass @ 77°F (25°C)	6 minutes	
Gel Time	7 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 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.

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.

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.	1.7 lbs.	84
Gallon Kits	8 lbs.	6.8 lbs.	335
5-Gallon Kits	40 lbs.	34 lbs.	1,672

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.



Handling Guide