TC-296 FR A/B

FIRE RETARDANT FLEXIBLE FOAM
6 LB DENSITY

RoHS

TC-296 FR A/B is a 6 lb. medium density, water blown flexible foam with fire retardant properties. This product was developed due to ongoing demand for fire retardant foams in the industries of Movie Special Effects, Theme Parks, Haunted Houses, and Theatrical Performance. Firmness of the foam can be controlled by mold temperature and the amount loaded in the mold. BJB's 6800 Series Pigments may be added to the "B" side for developing a wide range of colors. TC-296 FR A/B can be hand mixed, machine dispensed, or mixed with a Jiffy Mixer®.

- Prototypes
- Prosthetics
- Medical training devices
- Movie props/ Special effects

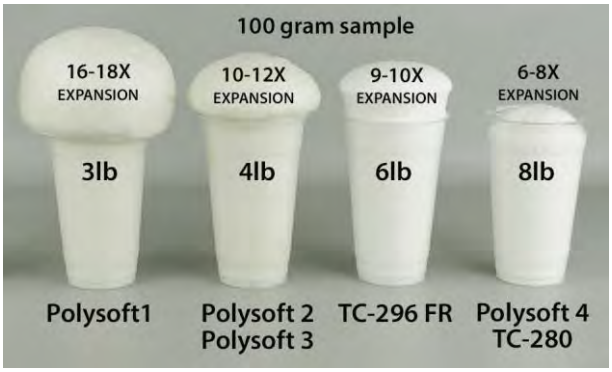
MEETS THE FOLLOWING:

D.O.T. Flammability of Interior Materials – FMVSS 302

HANDLING PROPERTIES	Part A	Part B
Mix Ratio by weight	50	100
Specific Gravity @ 77°F (25°C)	1.188	1.054
Color	Pale Yellow	Off White
Viscosity (cps) @ 77°F (25°C) Brookfield	400	1500
Density, (free rise) lbs/ft^3	6	
Density, (free rise) kg/m^3	96.1	
Cream Time	20 – 25 seconds	
Rise Time	1.25 – 1.5 minutes	
Tack Free Time	6 – 7 minutes	
Demold Time	20 – 30 minutes	

Properties above are typical and not for specifications.

*The density and processing times listed are derived from a statistical average of long-term testing. We recommend a test mix be performed before use. BJB quality control tests and product packaging are based on the 50/100 pbw ratio.



MIXING:

Mixing is best with a high speed drill or air motor with a "Jiffy Mixer". The blade shears the material and provides a thorough mix within the 8 to 10 second period generally established for achieving a uniform blend. Mixing too long or not enough can result in poor material performance. Once mixed, the material should be *immediately* poured. If too much time goes by, the foam will rise in the mix container and the batch may be lost.

When pouring the foam, avoid trying to scrape any material from the container sidewalls or bottom. Generally, there isn't enough time to do this and more importantly there may be material that is not well mixed on the container sides.

MOLD PREPARATIONS:
The mold should be well sealed and released. Foams will seek moisture through release waxes and stick to mold surfaces if an insufficient seal exists. The mold should be warmed to between 75- 85°F (24-29°C) prior to casting the first part. Once a mold is heated and cycled it will maintain heat for continued production.

Release systems vary in accordance to the type of mold used; however, as a general product we recommend Challenge 95 Release or a mold release paste wax. As a rule, silicone based releases do not work with either the flexible or rigid foam groups of materials. The silicone migrates and often causes poor surface conditions. Silicone will also inhibit the adhesion of paints and over-coatings.

The best molds for production (rather than prototype or limited production parts) are either machined aluminum molds or epoxy molds. Epoxy molds offer the least expensive method for long term use when cycle times allow slower heat dissipation.

DEMOLDING FOAM MATERIALS:
TC-296 FR A/B can be removed from the mold within a 25-30 minute timeframe. However, smaller masses will develop lower exothermic reaction and may require a slightly longer cure time. It is recommended that foam parts be crushed or squeezed after demolding to remove residual gases remaining in the cell structure. This will help to reduce post shrinkage and aid in reducing natural odors from the foam part.

NOTE:
The "B" component should be gently shaken or stirred to re-blend prior to mixing with part "A".

STORAGE:
Store at ambient temperatures, 65-80ºF (18-27ºC). 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.
When first using the material, a sample should be visually inspected to be sure no crystallization is present. Crystallization of either the resin or hardener can occur during shipment in cold weather. If the resin appears cloudy or the hardener becomes gummy, the component should be warmed with the containers open and stirred until the material returns to its proper smooth liquid consistency.

PACKAGING	Part A	Part B
Quart Kits	1 lb.	2 lbs.
Gallon Kits	4 lbs.	8 lbs.
5-Gallon Kits	20 lbs.	40 lbs.
55-Gallon Drum Kits	220 lbs.	440 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.

Scan QR code to see our How-to Foam Video

TC-296 FR Part A SDS

TC-296 FR Part B SDS

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