FOAM-iT!® Series

Rigid Polyurethane Foams

3lb., 5 lb., 8 lb., 10 lb., 15 lb. or 26 lb.

SMOOTH-ON SINCE 1895

www.smooth-on.com

PRODUCT OVERVIEW

Smooth-On's **FOAM-iT!® Series** are two-component water blown rigid foams that are versatile and easy to use. **FOAM-iT!®** products are available in 3lb., 5 lb., 8 lb., 10 lb.,15 lb. or 26 lb. per cubic foot densities. Parts A and B are measured and mixed in equal amounts by volume (Note: **FOAM-iT!® 8 is measured and mixed 2A:1B by weight**). The mixture is then poured into a mold or other form (apply release agent if necessary). The mixture will expand many times original volume (depending on which **FOAM-iT!®** product you are using) and develop a uniform cell structure. **FOAM-IT!®** 3, 5, 10, 15 and 26 are tack-free in about 4 - 6.5 minutes, developing handling strength in 20 minutes and full cure in 2 hours.

FOAM-iT!® 10 SLOW is a 10 lb. density foam with a longer, 3.5 minute working time, taking 1 hour to reach handling strength and 4 hours to cure. **FOAM-iT!® 10 SLOW** is designed for large-pour applications and can be used for a variety of industrial, art-related and special effects applications.

FOAM-iT!® 8 is a unique, self-skinning foam with a finer, more uniform cell structure than the other **FOAM-iT!®** products.

FOAM-iT!® 26 is a high density rigid foam that is very hard and very strong.

FOAM-iT!® 8, 15 or 26 can be cast in blocks as a machinable prototype modeling board.

All **FOAM-iT!®** products can be used as a straight casting material, backfill material for hollow castings (adds structural strength) or as an encapsulation material, etc. They can be color pigmented with SO-Strong® color tints and are used for a variety of art/craft, industrial design and special effects applications.

TECHNICAL OVERVIEW

	A:B Mix Ratio by Volume	A:B Mix Ratio by Weight	Mixed Viscosity (ASTM D-2393)	Specific Gravity (g/cc) (ASTM D-1475)	Specific Volume (cu. in./lb.)	Color	Pot Life (Cream Time) (ASTM D-2471)	Tack-Free Time	Handling Strength	Cure Time	Approx. Volumetric Expansion	Lbs. / Cu. Foot = Kgs. / Cu. Meter
Foam-iT!® 3	1:1 pbv	100:87 pbw	200 cps	0.04-0.06	530-630	Beige	1 min.	6.5 min.	20 min.	2 hrs	18 times	3 lb/ft³=48 kg/m³
Foam-iT!® 5	1:1 pbv	100:87 pbw	300 cps	0.08-0.10	300-350	Beige	1.5 min.	5 min.	20 min.	2 hrs	10 times	5 lb/ft³=80 kg/m³
Foam-iT!® 8	N/A	2:1 pbw	300 cps	0.12-0.14	200-230	Off White	1.5 min.	5 min.	20 min.	2 hrs	8 times	8 lb/ft³=130 kg/m³
Foam-iT!® 10	1:1 pbv	100:87 pbw	400 cps	0.15-0.17	150-175	Beige	1.5 min.	5 min.	20 min.	2 hrs	6 times	10 lb/ft³=160 kg/m³
Foam-iT!® 10 SLOW	1:1 pbv	100:87 pbw	400 cps	0.15-0.17	150-175	Beige	3.5 min.	20 min.	1 hr	4 hrs	6 times	10 lb/ft³=160 kg/m³
Foam-iT!® 15	1:1 pbv	100:87 pbw	500 cps	0.22-0.26	105-125	Beige	1.5 min.	4 min.	20 min.	2 hrs	4 times	15 lb/ft³=240 kg/m³
Foam-iT!® 26	1:1 pbv	100:90 pbw	500 cps	0.38-0.45	61-72	White	1.5 min.	5 mins	20 mins	2 hrs	2 times	26 lb/ft³=416 kg/m³

* Values measured at room temperature (73°F/23°C)

PROCESSING RECOMMENDATIONS

PREPARATION...

Preparation - Store and use at room temperature (73°F/23°C). Environmental humidity should be as low as possible. Good ventilation (room size) is essential. This product has a limited shelf life and should be used as soon as possible. Wear safety glasses, long sleeves and rubber gloves to minimize contamination risk. **Because no two applications are quite the same, a small test application to determine suitability for your project is recommended if performance of this material is in question.**

Applying A Release Agent - These foams will stick to just about anything. A release agent is necessary to facilitate demolding when casting into or over most surfaces and will extend mold life. **Use a release agent made specifically for releasing urethane foams such as Ease Release® 2831** available from Smooth-On or your Smooth-On distributor. **Do not use a silicone based release agent.** A liberal coat of release agent should be applied onto all surfaces that will contact the foam. **IMPORTANT:** To ensure thorough coverage, lightly brush the release agent with a soft brush over all surfaces. Let the release agent dry for 30 minutes.

IMPORTANT: Shelf life of product is reduced after opening. Remaining product should be used as soon as possible. Immediately replacing the lids on both containers after dispensing product will help prolong the shelf life of the unused product. **XTEND-IT® Dry Gas Blanket** (available from Smooth-On) will significantly prolong the shelf life of unused liquid urethane products.

Safety First!

The material safety data sheet (MSDS) for this or any Smooth-On product should be read before using and is available on request. All Smooth-On products are safe to use if directions are read and followed carefully.

Keep Out Of Reach Of Children.

Be careful. Part A (Yellow Label) contains methylene diphenyldiisocyante. Vapors, which can be significant if heated or sprayed, may cause lung damage and sensitization. Use only with adequate ventilation. Contact with skin and eyes may cause severe irritation. Flush eyes with water for 15 minutes and get immediate medical attention. Remove from skin with soap and water.

Part B (Blue Label) is irritating to the eyes and skin. Avoid prolonged or repeated skin contact. If contaminated, flush eyes with water for 15 minutes and get immediate medical attention. Remove from skin with soap and water. When mixing with Part A, follow precautions for handling isocyanates.

IMPORTANT: The information contained in this bulletin is considered accurate. However, no warranty is expressed or implied regarding the accuracy of the data, the results to be obtained from the use thereof, or that any such use will not infringe upon a patent. User shall determine the suitability of the product for the intended application and assume all risk and liability whatsoever in connection therewith.

MEASURING & MIXING...

Liquid urethanes are **moisture sensitive** and will absorb atmospheric moisture. Mixing tools and containers should be clean and made of metal, glass or plastic. Materials should be stored and used in a warm environment (73°F/23°C).

Know the mix ratio for the FOAM-iT!® product you are using. After dispensing the correct amounts of Parts A and B into mixing container, **mix thoroughly for 45 seconds**. Stir quickly making sure that you scrape the sides and bottom of the mixing container several times. Be careful not to splash low viscosity material out of the container. **Remember, foams cure quickly**. Do not delay between mixing and pouring.

POURING, CURING & PERFORMANCE...

Pouring & Curing - For best results, pour your mixture in a single spot at the lowest point of the containment field and let the mixture seek its level. Allow space in the containment field for the foam to grow as it expands to its ultimate volume. Allow foam to cure for at least 20 minutes before handling **(Foam-iT! 10 SLOW - 1 hour)**.

Improving Surface Finish & Minimizing Voids With Back Pressure - Use a board that will completely cover the mold opening. Using a 3/4" (2 cm) drill bit, drill 3 holes in the board spaced a few inches/cm apart. Make sure that when the board is placed over the mold opening the holes are over the mold cavity and rising foam will be able to make it through. Apply Ease Release® 2831 thoroughly to both sides of the board and into the drilled holes. Mix and pour FOAM-iT!® into mold cavity and place board over mold opening. Secure board firmly in place (mold straps may be necessary). As foam rises in the mold cavity, some foam will grow out of the drilled holes. After the foam stops growing, you can let go of the board. Do not handle for at least 20 minutes **(Foam-iT! 10 SLOW - 1 hour)**. You can then cut excess material that came through holes and gently remove board and casting.

Fully Cured Foam can be sanded, machined, drilled, etc. (wear NIOSH approved respirator). Foam can also be primed and/or painted.

Call Us Anytime With Questions About Your Application

Toll-free: **(800) 762-0744** Fax: **(610) 252-6200**

The new **www.smooth-on.com** is loaded with information about mold making, casting and more.