

Alumilite's Flexible Foam

3-8lb. Density

Product Description:

Alumilite's Flexible Foam 3-8lb Density is an easy to use, versatile, high tear strength, 2 part expandable flexible foam. It's ideal for making soft foam pieces and also is great for prototyping or casting cushions, vibration dampeners, or flexible nests/fixtures. Simply combine 1 part side A and 2 parts side B by weight into mixing container. Mix immediately by hand or with a drill mixer for 15 seconds. Pour into a properly prepared mold as soon after mixing as possible. The 2 parts will chemically react and begin to expand before curing into a 3-5 lb density foam in open molds or a 5-8 lb density foam in closed molds.

Physical Properties:

Color	Off-White
Mixed Viscosity (cps)	2000 cps
Density	3-8 lbs (based on open or closed mold)
Specific Gravity	1.05
Expansion	3-5 times the original liquid volume

General Properties:

Color	"A" Side	Yellow
	"B" Side	White
Mix Ratio		1A:2B by weight
Shelf Life		6 months
Open Time at 75 Degrees F (100g mass)		10-25 seconds
Rise Time at 75 Degrees F (100g mass)		30-45 seconds
Demold Time at 75 Degrees F (100g mass)		10-15 minutes
Full Cure Schedule		72 hours

Packaging:	24 oz
	24 lb
	120 lb
	Drum Kit

Safety: Read complete labels, SDS, and technical data sheet including instructions before using.

Before use, read product labels and Safety Data Sheets. Follow safety precautions and directions. Contact with uncured products may cause eye, skin and respiratory irritation and dermal and/or respiratory sensitization. Avoid contact with skin and eyes. If skin contact occurs, remove with waterless hand cleaner or alcohol then soap and water. In case of eye contact, flush with water for 15 minutes and call physician. Use only with adequate ventilation. Alumilite foams are not to be used where food or body contact may occur. The cured foam burns readily when ignited. Care should be taken with sanding dust and other easily ignitable forms of these products.

Instructions

Keep Alumilite out of the reach of children, do not take internally, and do not use in any way other than it's intended use.

1. Before Starting

Make sure your work area is appropriate for measuring, mixing, and pouring casting resins that can and will stain any porous materials such as carpet and clothing. Also make sure to use and store materials in an area where children cannot reach or access.

2. Mold Preparation

Preheat your mold to 130-150 degrees F. Mold release is required for any non silicone molds used. Mold release is also recommended but not required when using silicone rubber molds.

3. Mixing & Pouring

Measure 1 part A to 2 parts B by weight. Mix thoroughly being sure to scrape both the sides and bottom well to ensure a complete mix. Once mixed thoroughly (10-25 sec.), pour the material down the sides of the mold, wetting out as much of it as possible. The Flexible Foam will start to rise around the 30-45 second point. If you are going to "pack" the foam, mold release a piece of non porous plastic or metal and lay it over the back of the mold leaving only one small corner of the mold open as a breather hole to allow the pressure to release. Allow to cure for 10-15 minutes to ensure the skin has cured enough to safely remove it from your mold.

To produce the best skin possible, mix long into the open time and pour as late as possible to fill the entire cavity without trapping voids. This late pour technique allows for a tighter surface quality. If the part is too detailed and you cannot pour late into the mix time, be sure to tilt, rotate and coat the entire mold surface with mixed Alumilite's Flexible Foam 3-8lb Density prior to it expanding. This will also improve the surface quality of the cast Flex Foam piece.

4. Coloring

Alumilite's Flexible Foam 3-8lb Density can be colored using Alumilite's Coloring Dyes. Only 1-2% of dye is required to effectively color the Flexible Foam.

Painting can be achieved but requires a flexible paint that won't crack when your cast part flexes and is best if painted immediately after demolding while the resin is still curing. Once the resin has completely cured, paint adhesion is not as strong. Most flexible paints will still bond but may scratch off easier if not applied while the resin is still curing. Another option is to paint your silicone rubber mold, allow the flexible paint to dry, and then cast your resin into the mold. The Alumilite's Flexible Foam 3lb Density will chemically bond to the dry flexible paint, and once the resin cures you will demold a perfectly painted piece that moves and flexes as the part does.

5. Storage

For best results, store products in unopened containers at room temperature (60-90°F/15-32°C). Use products within six months. Flexible Foam 3-8 lb Density Part A may crystallize, develop sediment and become cloudy if stored at temperatures below 60°F. To restore product, loosen lid (to avoid pressure buildup) and warm product to 120-160°F until the liquid is clear. Before use, let product cool to room temperature. Using a crystallized or cloudy Part A may result in a foam with inferior physical properties.

6. Mold Release

To achieve maximum parts out of your silicone molds or to ensure release out of non-silicone molds (aluminum, urethane elastomers, latex, or any other substrate), we recommend using Alumilite's Stoner Urethane Mold Release. This offers maximum release and puts an effective layer of release on non-porous surfaces to release Alumilite Casting Resins. When using the Stoner Mold Release, some release will transfer to the cast resin part after demolding and may interfere with the ability to paint or bond the cast resin piece. A mild solvent wash may be required to remove the Stoner from the casting.

Alumilite does offer a "Paintable" mold release called UMR. UMR can be used as a release between silicone to silicone, urethane to urethane, silicone to urethane, and much more. It is an all-purpose mold release that does not interfere with painting unless excessive amounts are used and transferred to your casting.

7. Work Area & Clean Up

Mixed Alumilite resins will absorb into porous materials and will stain! Avoid clothing, carpet, upholstery, and any other porous materials which will stain and will not come out. Resin casting is best done in a designated work area such as a basement, garage, or hobby room with adequate air movement or ventilation. Cover any surfaces including floors with plastic sheeting, cardboard, or plywood to prevent damage from spilled resin. To clean up unmixed or still liquid material, use rubbing alcohol on a rag or paper towel to quickly clean and remove. Once cured, the resin is extremely durable and chemical resistant and nearly impossible to remove. There are a couple solutions out in the market that claim to dissolve cured urethanes. If you are in need of such a material, please call us and we can refer you to some possible solutions.



8. Shelf Life

The shelf life of Flexibe Foam 3-8 lb Density is 6 months in an unopened container but a much longer shelf life can be expected even after being opened as long as it is sealed and stored in an area free from moisture contamination (humidity and changing of temperatures such as a garage).

10. Warranty

NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE CONCERNING THE INFORMATION HEREIN PROVIDED OR ANY RELATED PRODUCT. User is responsible for determining whether the Aluilite product is fit for user's particular purpose and suitable for user's use or application. Given the variety of factors that can affect the use and application of an Aluilite product, it is the user's obligation to determine the suitability of the product for its intended application, and user assumes all risk and liability for safe use of the product. Aluilite's liability is limited to product replacement only after review/testing of product alleged to be defective that is returned to Aluilite in accordance with Aluilite's Shipping and Returns Policy. In no event shall Aluilite be liable for punitive, consequential or indirect damages or damages in excess of the purchase price of the product.