Technical Bulletin

Flexible Liquid Urethane Foams

PUF14F is polyether type polyurethane soft foam combination material,and also a good rebound performance, thermal insulation, noise reduction, reinforcement , high reactivity strongest flexible casting foams.Ideal for making props, industrial and special effect applications, padding/cushion material and gasket material.
Part A and B liquids are combined, mixed and poured into a mold or other form (apply release agent if necessary). Mixture will rise and cure quickly to a solid, flexible foam.

Applications

- Special Effects
- Prototypes
- Seats & Cushions
- Prosthetics
- Movie special effects props
- Sound deadens
- Shockproof material
- Gasket material
- Wall Repair
- Furniture/Artwork/Gap filling

Features

- Easy to Blend/Painted
- Good resilience
- Excellent Sound Dampening Effect
- Thermal Insulation
- Water resistant
- Non-Toxic
- Vibration dampening

TECHNICAL OVERVIEW

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.

PROCESSING RECOMMENDATIONS

Flexible Liquid polyurethane Foams	
Composition	A:Polyols B:Isocyanate
Mix Ratio	2A:1B by weight
Appearance	Liquid
Color	A:Milky White B:Light Yellow
Pot Life	1min
Handling time	2mins
Cure time	2H
Viscosity cps	A:450 B:850
Specific Gravity	0.08g/cc
Density kg/m^3	A:1.05±0.03 B:1.19±0.02 Cured :85±5
Values measured at room temperature (73°F/23°C) **Expansion and Density can be customized**	

PREPARATION...

Mixing containers should have straight sides and a flat bottom. Mixing sticks should be flat and stiff with defined edges for scraping the sides and bottom of your mixing container. 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.

APPLYING A RELEASE AGENT

Urethane foams are adhesive and will stick / bond to many surfaces. We recommend Release agent to release urethane foam from most surfaces.

PRE-MIXING & MIXING...

Pre-mix Parts A & B - Stir or shake both Part A & Part B thoroughly before dispensing. Measuring - Stop! Know the mix ratio of the foam product you are using. Some are by weight and some are by volume. Dispense the correct amounts of Part A and Part B into a large mixing container.

For Best Results - Pre-Mix Part A after measuring out material - although not necessary, pre-mixing Part A using a drill and mechanical mixer after measuring out and before combining with Part A will yield best results.

For Best Results- Use a Mechanical Mixer - Mix for a minimum of 15 seconds and pour into mold or form.

Mixing by Hand- Stir quickly and deliberately for a minimum of 15 seconds. Make sure that you aggressively scrape the sides and bottom of your mixing container several times. Pour into mold or form.

Be careful not to splash low-viscosity liquid out of container. Remember, these materials cure quickly. Do not delay between mixing and pouring.

CURING, PAINTING & HEAT RESISTANCE

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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 30 minutes before handling. Cure time will be affected by mass and mold configuration.

Mass Concentration / Mold Configuration- Pouring large amounts at a time in certain mold configurations could cause excess heat to be generated and result in splitting \. Step pouring in layers may resolve this problem.

Improving Surface Finish & Minimizing Voids With Back **Pressure -** Capping the mold cavity opening with a board that has predrilled holes will improve surface finish for some foams.

Is Your Foam Collapsing?-This is a common phenomenon associated with cold temperatures, inadequate mixing or both. Environment or material too cold? Warm it up. Inadequate mixing? You must thoroughly pre-mix both parts A and B. After combining A and B, mix thoroughly. If using a mechanical mixer, mix for 30 seconds. When hand mixing, mix quickly and aggressively, almost whipping the material.

Liquid urethanes are moisture sensitive and will absorb atmospheric moisture.
Materials should be stored and used in a warm environment (73°F/23°C).
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.

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 there with.

Safety Instructions:

FOR INDUSTRIAL USE ONLY.
KEEP AWAY FROM CHILDREN.

Storage Instructions: