



SOUNDFOAM M with UNISEAL



Complete composite assembly.

PRODUCT DESCRIPTION

Soundfoam M is an acoustic quality, open cell, flexible polyether-based urethane foam. The unique formulation is targeted at both acoustic performance and durability, providing consistent acoustic performance over a wide frequency range. Soundfoam M alone will meet UL 94 HF-1, but the rating may be altered by facing application.

Polyether foams are characterized by excellent hydrolytic stability for moisture and humidity resistance, chemical resistance, and resistance to degradation over their polyester counterparts. Advancements in foam manufacturing have improved the uniformity of the polyether cell structure and consistent sound absorption.

Uniseal is both a product and a proprietary Soundcoat process; a polyurethane film is vacuum-laminated to all exposed surfaces of the cut foam part - across the top and all exposed sides - for complete coverage on all surfaces. This unique process keeps the face of the foam micro-porous to maintain a quality acoustic absorption rating, while still resisting the ingress of fluids. The surface treatment improves durability, cleanability, and shifts the acoustic absorption curve to the lower frequencies.

Uniseal parts are exceptionally durable and used in the most rugged applications - from power-washed heavy duty equipment applications, under-hood of on highway trucks, and devices where fluid splatter can be problematic. Additionally, a Cabfoam® embossed texture can be added to the face of the part to provide an aesthetic look to a fully sealed part inside of an operator cabin.

TYPICAL APPLICATIONS

- Trucks, buses, construction, mining, agriculture, military transport, and emergency vehicles
- Gensets, conveying systems, HVAC, compressed air
- Semiconductors, telecommunications equipment, EV charging stations and battery storage
- Medical equipment

MARKETS



FOAM PHYSICAL PROPERTIES - SOUNDFOAM M

Material Type	Polyether polyurethane foam
Color	Charcoal grey
Density	1.8 lbs./ft ³ per ASTM D3574-77, Test A
Tear Strength (lb./in.)	2 (min.) per ASTM D3574-77, Test F
Tensile Strength (psi)	14.5 (min.) per ASTM D3574-77, Test E
Elongation (%)	200.0 (min.) per ASTM D3574-77, Test E
Flammability	US-94-HF-1, FMVSS 302
Compression Set	10% maximum per ASTM 3574-91, Test D
Thickness	Specified on drawing
Estimated Service Life	27 °C (80 °F) & 50-60% R.H., Min. 8 years

PRODUCT CONFIGURATIONS

- Custom cut parts* and kits
- *All parts must be cut to shape prior to Uniseal application.



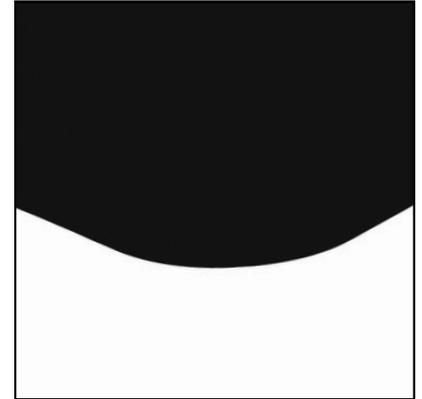
Soundfoam M



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FACING PHYSICAL PROPERTIES - POLYURETHANE FILM

Material Type	Polyurethane
Colors	Black (available in white, grey, bone, & custom colors)
Thickness	0.004" (prior to lamination process)
Tensile Strength (psi)	6800
Elongation (%)	300.0 (min.)
Tear Initiation	450 lbs./in.
Tear Propagation	400 lbs./in.
Taber Abrasion	8 mg. Loss, 1000 mg. Load, 2000 Cycles
Chemical Resistance	<p>Immersion Data. Measured % change. Hydrolysis Resistance: 1 week immersion in water at 70 °F. Tensile, Elongation %, Elongation modulus=No change Ethylene Glycol: 1 week at 23 °C Tensile = 20% loss Elongation = No change Modulus = 15% loss</p> <p>ASTM Oil #2: 1 week at 23 °C Tensile = No significant change Elongation = No significant change Modulus = No significant change</p> <p>ATSM Fuel A: 1 week at 23 °C Tensile = No significant change Elongation = No significant change Modulus = No significant change</p>



Polyurethane Film



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THE SOUNDCOAT PROMISE

We have one goal: to enhance the customer experience by providing world-class products manufactured under ISO 9001:2015 and AS9100:2016 standards in one of our modern manufacturing facilities strategically located on each coast.

All materials are tested and qualified in our acoustics and materials testing laboratory to ensure consistent quality and performance.

Soundcoat products are supplied, tested, and produced to your specifications.

10/30/2025

Visit [soundcoat.com](https://www.soundcoat.com) to see our complete line of absorption, barrier, damping, sealing, and thermal materials.

For further information on meeting specific requirements and for optimum product configuration, contact our Technical Support Department at 1-800-394-8913.

The information contained herein is based on laboratory test data developed by or for Soundcoat and is believed to be reliable, but its accuracy or completeness is not guaranteed. The buyer must test this product to determine its suitability for his/her specific application before use. Only use a Soundcoat product after thoroughly consulting instructions on the data sheet for the specific product. SOUNDCOAT DISCLAIMS ANY RESPONSIBILITY FOR 1) WARRANTIES OF FITNESS AND PURPOSE, 2) VERBAL RECOMMENDATIONS, 3) CONSEQUENTIAL DAMAGES FROM USE, AND 4) VIOLATION OF ANY PATENTS OR TRADEMARKS HELD BY OTHERS.

Properties subject to change without notice. Check with Soundcoat for latest revisions. Flame, smoke, toxicity performance is not intended to reflect hazards presented by this material under actual fire conditions. The Federal Trade Commission considers that there are no existing test methods or standards regarding flammability that are accurate indicators of the performance of cellular plastic materials under actual fire conditions. Any results of existing test methods are intended for measurements of the relative performance of such materials under specific controlled test conditions.

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