



SOUNDFOAM O with UNISEAL



Complete composite assembly.

PRODUCT DESCRIPTION

Soundfoam O with Uniseal is a sound absorbing foam composite which is intended for reducing airborne noise and providing thermal insulating value inside housings and enclosures of machines, electronics and medical components.

It consists of a layer of stable open cell polyester polyurethane foam with a moisture- and chemical-resistant polyurethane film vacuum-laminated in a way that covers all exposed surfaces of the foam (except the mounting side) without any seams. This edge sealing process, called Uniseal, is proprietary to Soundcoat.

This unique composite maintains a quality acoustic absorption rating while still resisting the ingress of fluids. It improves durability, cleanability, and shifts the acoustic absorption curve to 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.

MARKETS



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

PRODUCT CONFIGURATIONS

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

FOAM PHYSICAL PROPERTIES - SOUNDFOAM O

Material Type	Polyester polyurethane foam
Color	Charcoal grey
Density	2 lbs./ft ³ per ASTM D3574-77, Test A
Tear Strength (lb./in.)	2 (min.) per ASTM D3574-77, Test F
Tensile Strength (psi)	20.0 (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



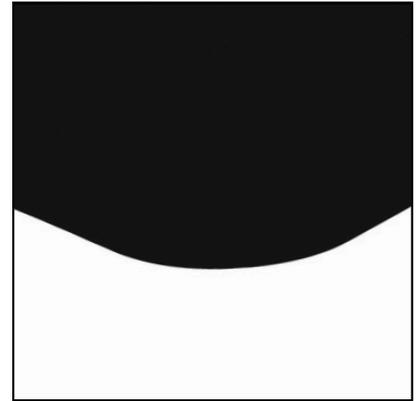
Soundfoam O



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FACING PHYSICAL PROPERTIES - POLYURETHANE FILM

Material Type	Polyurethane
Colors	Black (available in white, grey, bone, & custom colors)
Thickness	0.004/0.005" (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.

Rev. date 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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