TECHNICAL DATA SHEET
COMPOSITE MATERIAL

SOUNDCOAT

# SOUNDFOAM O with UNISEAL

*Complete composite assembly.*

## PRODUCT DESCRIPTION

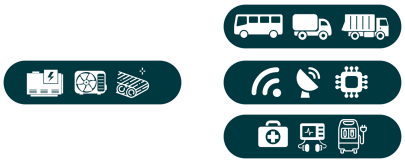
Soundfoam O with Uniseal is a sound absorbing foam composite which is intended for reducing airborne noise and providing thermal insulating value inside housings and enclosures of machines, electronics and medical components.

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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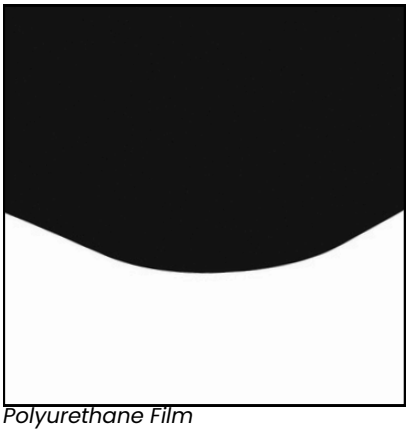
## FACING PHYSICAL PROPERTIES - POLYURETHANE FILM

| | |
|---|---|
| **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** | Immersion Data. Measured % change.<br>Hydrolysis Resistance: 1 week immersion in water at 70 °F.<br>Tensile, Elongation %, Elongation modulus=No change<br>Ethylene Glycol: 1 week at 23 °C<br>Tensile = 20% loss<br>Elongation = No change<br>Modulus = 15% loss<br><br>ASTM Oil #2: 1 week at 23 °C<br>Tensile = No significant change<br>Elongation = No significant change<br>Modulus = No significant change<br><br>ATSM Fuel A: 1 week at 23 °C<br>Tensile = No significant change<br>Elongation = No significant change<br>Modulus = No significant change |



*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 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.



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