

Sound Insulation and Protection

Acoustic components made from OBoSonic® Foam



Polyurethane Molded Acoustical Foam Parts Made From OBoSonic® Foam

Innovative polyurethane solutions for vehicles

OBoSonic® Foam features modern polyurethane solutions primarily used for the automotive industry, including acoustic foams that offer sound protection and insulation. Additionally, OBoSonic® Foam features Electric Vehicle (EV) foams for encapsulating battery packs, cells, motors, and capacitors.

- Excellent noise absorption and dampening performance
- Temperature resistant from -40°F to 302°F
- Significant reduction in cost and weight compared to conventional material
- Contours for snug fit directly on top of engine components, fuel rails / pumps and coil packs
- Class 'A' design surfaces
- Excellent use of space with increased functionality
- Improves passive pedestrian impact protection
- Complies with all relevant fire safety requirements

OBoSonic® Foam Products

Mechanical Properties		
Density ASTM D3574-A	3.25 – 8.75 lbf/ft³	ASTM D3574-A
Tensile strength, foam ASTM D3574-E	22 – 44 lbf/in²	ASTM D3574-E
Elongation at break, foam	100 – 160 %	ASTM D3574-E
Tear resistance, foam	2.3 – 4.6 lbf/in	ASTM D3574-F
Compression Force Deflection (50%)	35 – 350 kPa	ASTM D3574-C
Constant Deflection Compression (50%)	5 – 15 %	ASTM D3574-D



Mechanical Properties		
Density	ASTM D3574-A	12.5 – 25 lbf/ft³
Tensile strength, foam	ASTM D3574-E	70 – 200 lbf/in²
Tensile strength, foam	ASTM D5034	35 – 100 lbf/in²
Elongation at break, foam	ASTM D3574-E	60 – 180 %
Tear resistance, foam	ASTM D3574-F	6.5 – 16 lbf/in
Compression Force Deflection (50%)	ASTM D3574-C	35 – 350 kPa
Constant Deflection Compression (50%)	ASTM D3574-D	5 – 20 %
Hardness	ASTM D2240-03	10 – 65 Shore A

OBoSonic® Flexible and Integral Skin Foam Lines

Burning Behaviour		
UL 94	Classification V0/HBF	
FMVSS 302	Classification SE	(Self Extinguishing)
DBL 5307	Classification B	(< 100 mm/min)
GMW 3232	Classification DNI	(Does Not Ignite)
ISO 3795	Classification SE	
SAE J369	Classification SE	
TL 1010	Classification SE/NBR	(BR < 50 mm/min)
(ICE 60695-2-10)Glow-wire test	Classification 750 °C (1382 °F)	

About Carpenter

Founded in 1950, Carpenter Co. is the world's largest vertically integrated manufacturer of polyurethane foams. Carpenter also serves a diversified global marketplace with polyurethane chemical solutions, polyester fibers, and insulation materials through a network of more than 70 production locations. Our 6,500+ employees across the globe seek to provide the most innovative products and solutions with a focus on enhancing the quality of people's lives while being a good steward of our resources