

AeroTherm



Aerogel Integrated Tensile Membrane Systems

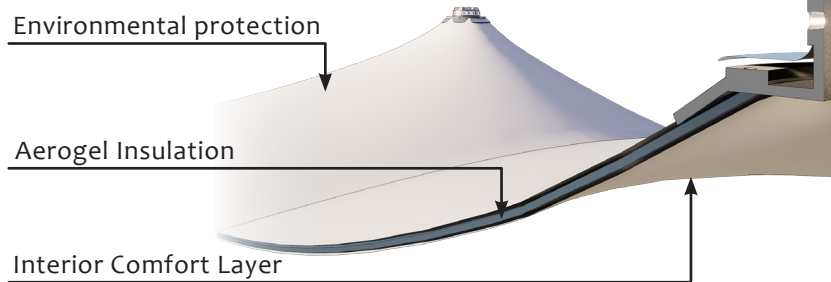
ADVANCED INSULATION | LIGHTWEIGHT DURABILITY | SUSTAINABLE INNOVATION

The ADAS AeroTherm is an advanced architectural solution that combines the strength of tensile structures with the unparalleled insulating properties of aerogel technology. Designed to optimize thermal performance, enhance structural longevity, and maintain natural daylighting, this system redefines possibilities in lightweight design applications.

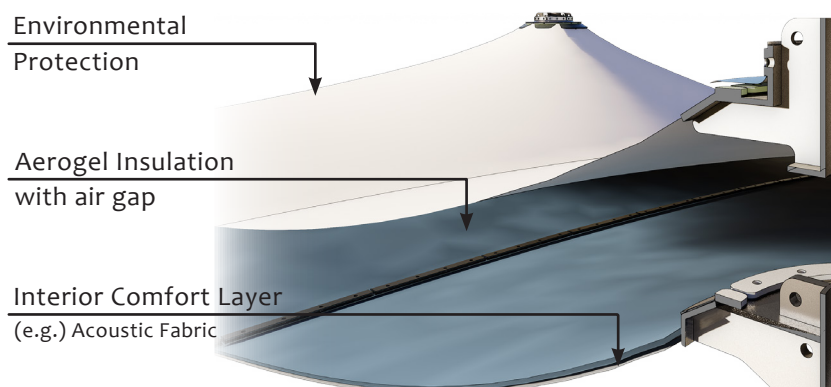
With a large consideration into enhancing energy efficiency while maintaining structural resilience and an aesthetic quality, it creates a seamless protective barrier that adapts to diverse environments—ideal for commercial, industrial, and residential applications.

Performance Category	Blanket Thickness		
	8mm	16mm	24mm
Thermal Performance			
U-Value (w/m ² K)	1.15	0.76	0.56
R-Value (ft ² °Fhr/Btu)	4.9	7.5	10.1
Solar Heat Gain Coefficient			
Solar Heat Gain Coefficient	5.30%	3.40%	2.30%
Acoustic Performance			
Absorption (Sabins/ft ²)	0.55	0.69	0.73
STC	18.0 dB	19.0 dB	21.0 dB
Fire Performance			
Fire Performance	Class A	Class A	Class A
Visual Transmittance			
Visual Transmittance	4.30%	3.00%	2.20%

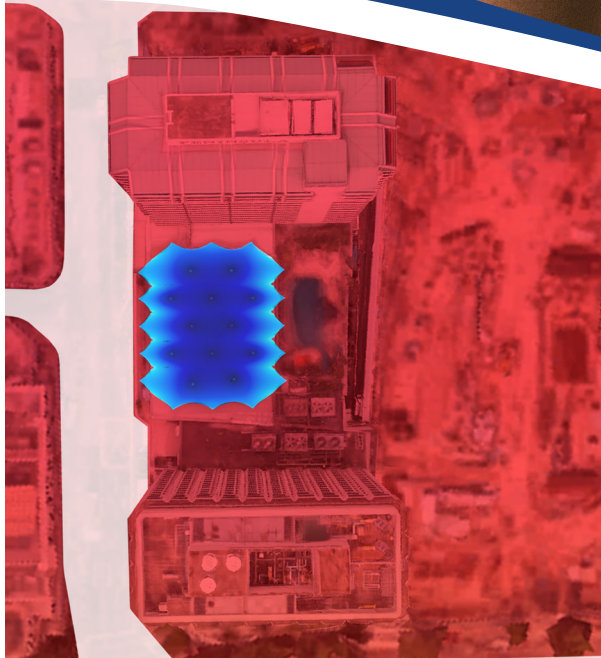
SINGLE-LAYER SYSTEM (SANDWICH)



MULTI-LAYER SYSTEM (WITH AIR GAP)



* Aerogel blanket thickness, air gap, and internal membrane materials are fully customisable to maximise efficiency and achieve optimal U-values.



HIGH-PERFORMANCE AEROGEL INSULATION

Physical Properties on site		AEROGEL		AEROGEL wrapped in Aluminum Foil	
	Material	Thermal Resistance	U-value	Thermal Resistance	U-value
External Layer	PTFE	0.0048	0.903684544	0.0048	0.493198585
Air Gap	Air Gap	0.1740			
Aerogel Layer	Aerogel	0.7200			
Internal Layer	PTFE	0.0048			

APPLICATIONS

Stadiums & Arenas
Hotels & Hospitality
Transportation Hubs

Sustainable Developments
Commercial & Industrial Spaces
Public Infrastructure & Canopies

CUSTOMISABLE MATERIAL CONFIGURATIONS

- Outer layer designed for potential fire resistance and weather protection.
- Inner layer adaptable for enhanced sound absorption.

ADVANCED THERMAL EFFICIENCY

- Optimizes energy use by minimizing heat transfer, maintaining natural light.
- Reduces HVAC strain, lowering cooling and heating costs.

LIGHTWEIGHT & DURABLE

- High tensile strength with minimal weight, ideal for large spans.
- Enhances acoustic insulation and withstands extreme weather.

SUSTAINABLE & ECO-FRIENDLY

- Reduces energy consumption and carbon footprint.
- Long-lasting, low-maintenance, and designed for lasting performance.



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