



Ultra-thin super-insulating aerogel sheet

Indicative Product Properties

		SKOGAR® ST	SKOGAR® HT
TYPE OF MATERIALS		Silica Aerogel & Glass Fibers	Silica Aerogel & Oxidized polyacrylonitrile (PAN) fibers
PROPERTIES	UNITS	VALUES	VALUES
Thickness available (at 0.5 kPa) <small>Acc ISO 5084</small>	mm	0.5 1.0 2.0 2.5 3.5	2.0 2.5 3.0 3.5 6.0
Thickness tolerance	mm	+/- 0.2	+/- 0.3
Thermal Properties			
Thermal conductivity (at 20°C) <small>Acc EN 12667</small>	W/(m.K)	0.012 - 0.015	0.012 - 0.018
Heat capacity: Cp (at 20°C) <small>Acc ISO 11357</small>	J/Kg/K	≈ 1000	≈ 950
Coef. of Thermal Expansion <small>-150/300°C Acc ISO 11359</small>	K ⁻¹	37.10 ⁻⁶	-1.4.10 ⁻⁵
Short-time flame exposure	°C	Up to 1100	Up to 1300
Flammability <small>UL 94-V FAR 25.853</small>	-	V-0 classification Except Skogar® ST 0.5: ISO 3795	V-0 classification FAR.253 App F: Conform (SKOGAR® HT2 & HT3)
Mechanical Properties			
Compression Stiffness - Deformation (at 0.2 MPa) <small>Acc ASTM D575</small>	%	35	30
Compression Set (% , Max) <small>@ 50% Deformation 50% Acc ISO 1856</small>	%	≤ 25	≤ 35
Stiffness	-	Rigid	Flexible
Electrical Properties			
Dielectric strength <small>ASTM D149</small>	kV/mm	> 2.5	> 2.5
Physical Properties			
Density	kg/m ³	130 - 160	140 - 180
Surface chemistry	-	Hydrophobic	Hydrophobic

All physical and mechanical values are average results from standard production, tested under internal procedures. Typical values are provided for reference only and may vary depending on testing methods. If a specific value is critical for your specifications, please contact Enersens's technical department

ADVANCED THERMAL BARRIER

Advanced Thermal Barrier for e-mobility, batteries and systems.

High thermal and mechanical performance to prevent thermal propagation, increase thermal management and provide high security protection.



SAFETY

Prevent thermal runaway propagation and protect from heat



PERFORMANCE

Ultra thin thermal insulation saves space, allowing more cells in a given volume



REGULATION & LIABILITY

Get ahead of safety regulations, avoid expensive recalls



CSR

Contribute to wider and faster adoption of electric mobility through safer and longer-range solutions

SKOGAR® PRODUCTS



SKOGAR® ST 0.5 to 3.5
Thickness: 0.5 mm to 3.5 mm



SKOGAR® HT 2.0 to 6.0
Thickness: 2.0 mm to 6.0 mm

Skogar® combines many outstanding features in a single product:

- ✓ Simply the best performance: thermal conductivity of 0.012 W/(m.K)
- ✓ Stable over time and in front of all external conditions: from -195°C to 1300°C
- ✓ Excellent fire behaviour: **non-flammable** material (UL94 – V0 certified)



- ✓ Ultra-thin products: 0.5mm / 1mm / 2mm / 2.5mm / 3.0mm / 3.5mm / 6.0mm
- ✓ A flexible insulation, easy to cut and safe to handle