

Ormosil Aerogel Insulation Sheet



High R value ~8 insulation, flexible

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Optowares' ARGL Ormosil aerogels are organically modified mesoporous silica materials with low density and thermal conductivity. These aerogels offer a cost-effective solution for applications that require ultra-high R-value insulation. Unlike conventional silica aerogels, which are often brittle, dusty, and degrade in humid environments over time, ARGL materials are mechanically robust, flexible, and low-dust. They exhibit a unique combination of properties, including nanometer-sized pores, lightweight structure, and superior insulation performance.

Features

- High R-value insulation 7.2 – 9.6 / inch
- Durable and less prone to moisture degradation
- Young's Modulus of 0.6-12 MPa
- Environment-friendly

Specifications

Parameter	Min	Typical	Max	Unit
Thermal Conductivity	15	18	20	mW/m·K
R-Value	7.2	8	9.6	/inch
Density *	0.08	0.12	0.14	g/cm ³
Tensile Strength	>0.05	0.25	>0.37	MPa
Young's Modulus	0.6	3.5	12	MPa
Work Temperature			120	°C
Thickness *	0.2	0.3	0.5	inch
Size *	1/2 x 1/2	8 x 8	12 x 12	inch
Color *	White (typical), Grey (IR-opacified)			

* Customizable

Applications

- Aerospace Insulation
- Cryogenic Insulation
- Sports Gear
- Instrumentation

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Ordering Information (Part Number)

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Prefix	Type	Size (inch)	Density	Thickness (inch)	Shape	
ARGL-	Regular = 1	1/2x1/2 = 1 1x1 = 2 2x2 = 3 4x4 = 4	0.14g/cc = 14 Special = 00	0.2 = 02 0.3 = 03 0.4 = 04 0.5 = 05 1.0 = 10	Square = 11	

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