

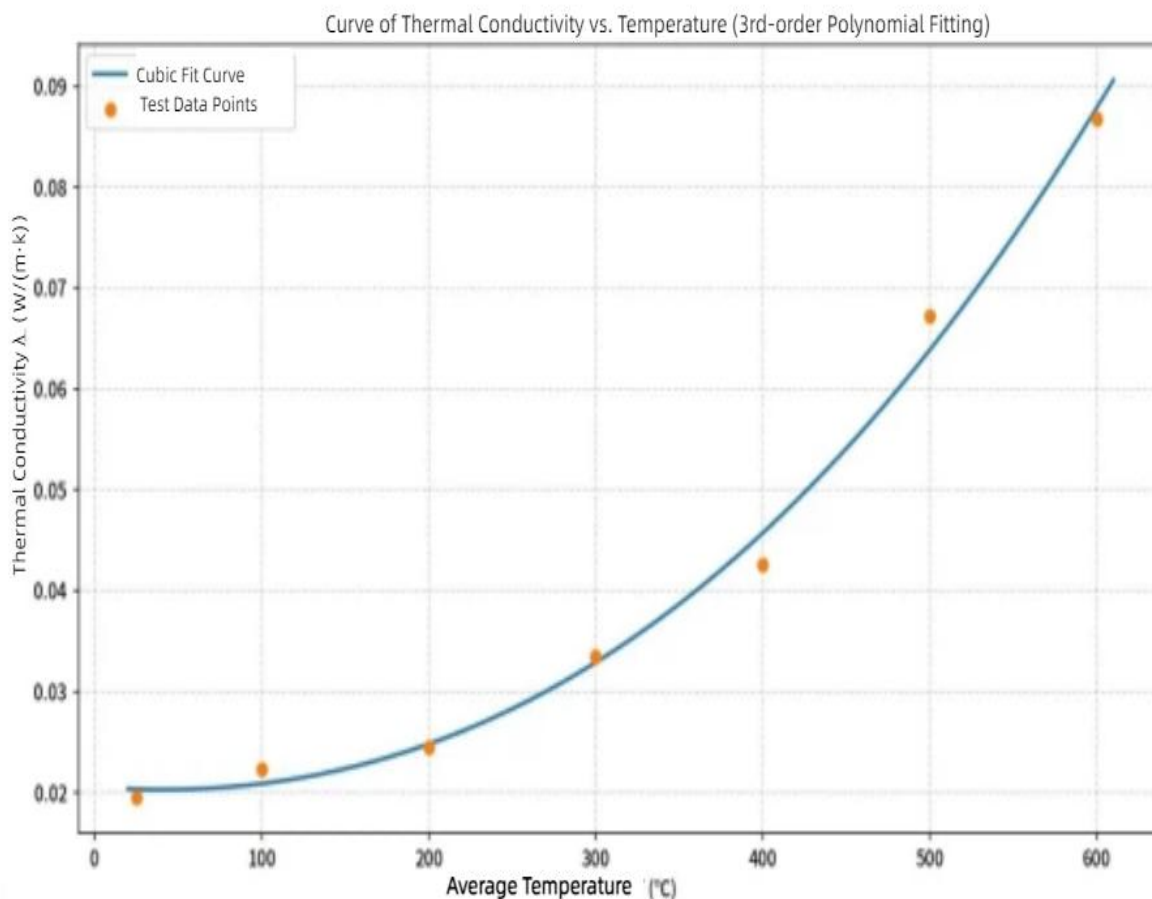
## HEBEI WOQIN - SILICA AEROGEL BLANKET

## TECHNICAL MASTER SHEET: INDUSTRIAL &amp; EXTREME EDITION

Property	Test Standard / Certifying Body	Value / Result
Cryogenic Thermal Conductivity	ASTM C177 / GB/T 10295	0.010 W/(m·K) @ -165°C (For S-Grade products)
Ambient Thermal Conductivity	GB/T 10295	0.017 - 0.020 W/(m·K) @ 25°C
High-Temp Thermal Conductivity	GB/T 10294	0.088 W/(m·K) @ 600°C
High-Temp Linear Shrinkage	ASTM C356 (649°C for 96 hrs)	< 0.8% (Zero thermal bridging)
Gamma Radiation Resistance	Co-60 Gamma Ray	Survives 2.64 × 10 <sup>6</sup> Gy (No deformation/cracking)
Compressive Deformation	1 Ton/m <sup>2</sup> Load Test	12.25% (High structural integrity for direct burial)
Tensile Strength (Durability)	GB/T 17911	1255 kPa (Transverse) / 414 kPa (Long) (High tear-resistance during installation)
Vibration Mass Loss (Dusting)	GB/T 34336	0.3% (Extremely clean matrix)
Soluble Chloride Ions	GB/T 17393	< 20 ppm (0.0017%)
Stress Corrosion on Stainless Steel	ASTM C795 / ASTM C692	PASS (Zero cracks during 28-day drip test per ASTM C692)
Steel Corrosion Rate	ASTM C1617	79 µm/y (Limit ≤ 150 µm/y)
Hydrophobic Rate	GB/T 10299	≥ 99.7%
Combustibility & Fire Rating	GB 8624 / EN 13501-1	Class A1 (Non-combustible)
Surface Burning Characteristics	ASTM E84	FSI: 0, SDI: 10

Property	Test Standard / Certifying Body	Value / Result
Marine Fire Safety	IMO 2010 FTP Code	Furnace Temp Rise: 1.3°C (Limit ≤ 30°C)
Environmental Compliance	Bureau Veritas (REACH / RoHS)	PASS (SVHC Free)
Marine Works Approval	China Classification Society (CCS)	Approved for Ships

**Disclaimer: All data summarized from official third-party lab reports (SGS, BV, CCS, CNAS). Full original certification package available upon request. Typical values based on third-party lab reports. Specifications vary by product grade.**



$$\lambda(T) = 9.499 \times 10^{-11} \times T^3 + 1.513 \times 10^{-7} \times T^2 - 1.283 \times 10^{-5} \times T + 0.02055$$

$$R^2 = 0.9936 \quad (25^\circ\text{C} \leq T \leq 600^\circ\text{C})$$

## TECHNICAL MASTER SHEET: MARINE & TRANSPORT EDITION

Property	Test Standard / Certifying Body	Value / Result
Marine Fire Safety (Non-combustibility)	IMO 2010 FTP Code Annex 1	Furnace Temp Rise: 1.3°C (Limit ≤ 30°C)
Combustibility & Fire Rating	GB 8624 / EN 13501-1	Class A1 (Non-combustible)
Asbestos Content	Bureau Veritas (ISO 22262-1)	Not Detected (100% Asbestos-Free)
Acoustic Insulation (Sound Reduction)	Internal Lab Test	26.4 dB for 10mm thickness (Comparable performance to 45mm mineral wool at 1/4 the thickness)
Tensile Strength (Durability)	GB/T 17911	1255 kPa (Transverse) / 414 kPa (Long) (High tear-resistance during installation)
Vibration Mass Loss (Dusting)	GB/T 34336	0.3% (Extremely clean for engine rooms & sensitive equipment)
Thermal Conductivity	GB/T 10295	0.017 - 0.020 W/(m·K) @ 25°C (Extreme space & weight saving)
Hydrophobic Rate	GB/T 10299	≥ 99.7% (Prevents marine moisture ingress & vessel rust)
Soluble Chloride Ions (CUI Defense)	GB/T 17393	< 20 ppm (0.0017%) (Prevents pipe corrosion)
Marine Works Approval	China Classification Society (CCS)	Approved for Ships
Environmental Compliance	Bureau Veritas (REACH / RoHS)	PASS (SVHC Free)

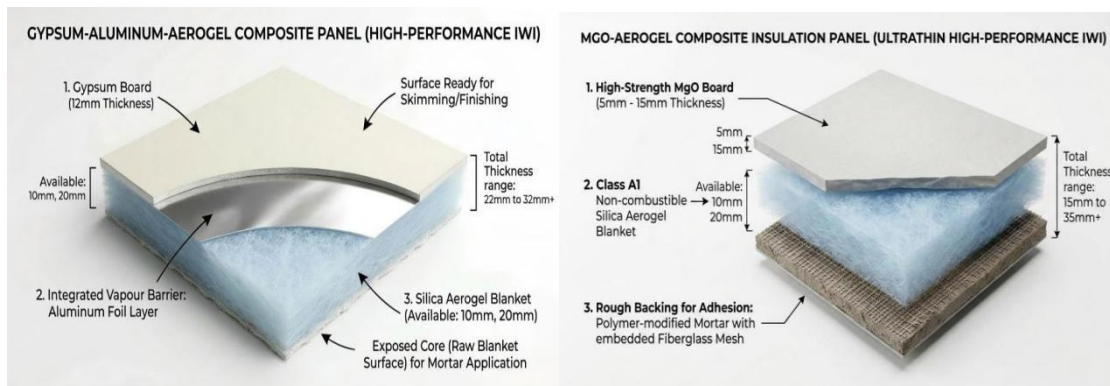
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**TECHNICAL MASTER SHEET: BUILDING, RETROFIT & PASSIVE HOUSE EDITION**

Property	Test Standard / Certifying Body	Value / Result
Ambient Thermal Conductivity	GB/T 10295 / EN 12667	0.017 - 0.020 W/(m·K) @ 25°C <i>(Ultimate space-saving for IWI &amp; EWI)</i>
Combustibility & Fire Rating	EN 13501-1 / GB 8624	Class A1 (Non-combustible) <i>(Highest fire safety for residential/commercial)</i>
Acoustic Insulation (Sound Reduction)	Internal Lab Test	26.4 dB for 10mm thickness <i>(Comparable performance to 45mm mineral wool at 1/4 the thickness)</i>
Moisture & Condensation Control	GB/T 10299	≥ 99.7% Hydrophobic Rate <i>(Prevents wall mold, rot, and dampness)</i>
Compressive Deformation	1 Ton/m² Load Test	12.25% under 1 tonne/m² load (9.8 kPa) <i>(High structural integrity for direct burial)</i>
Asbestos Content	Bureau Veritas (ISO 22262-1)	Not Detected (100% Asbestos-Free)
Environmental Compliance	Bureau Veritas (REACH / RoHS)	PASS (SVHC Free / Low VOC) <i>(Safe for indoor living environments)</i>
Prefabricated Composite Options	Woqin Advanced Systems	Plasterboard, MgO, or MCM Facings <i>(Ready for direct skimming/finishing. Customizable upon request)</i>
Vapour Barrier Integration	Woqin Encapsulation Tech	Double-Sided Aluminum Foil <i>(100% vapour control, eliminates thermal bridging. Customizable upon request)</i>

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## 1. Standard Dimensions: Metric & Imperial Comparison

Thickness (mm / inch)	Width (m / inch)	Length (m / feet)	Roll Area (m <sup>2</sup> / sq.ft)
3 mm (~1/8")	1.5 m (59")	65 m (213.2 ft)	97.5 m <sup>2</sup> (1049 sq.ft)
5 mm (~3/16")	1.5 m (59")	45 m (147.6 ft)	67.5 m <sup>2</sup> (726 sq.ft)
10 mm (~3/8")	1.5 m (59")	25 m (82.0 ft)	37.5 m <sup>2</sup> (403 sq.ft)
15 mm (~5/8")	1.5 m (59")	16 m (52.5 ft)	24.0 m <sup>2</sup> (258 sq.ft)
20 mm (~3/4")	1.5 m (59")	12 m (39.4 ft)	18.0 m <sup>2</sup> (193 sq.ft)

## 2. Advanced Temperature & Grade Matrix

Grade Type	Classification Temp	Thermal Conductivity (@ 25°C)	Notes / Availability
Standard Grade	650°C (1202°F)	≤ 0.020 W/(m·K)	High-performance industrial base
Premium S-Grade	650°C (1202°F)	≤ 0.017 W/(m·K)	Ultimate efficiency (S-Class)
Extreme Heat-H	850°C (1562°F)	≤ 0.021 W/(m·K)	Available in 10mm thickness
Ultra Heat-V	1000°C (1832°F)	≤ 0.023 W/(m·K)	Available in 10mm thickness

### Technical Notes & Additional Insights

1.pH Value (Leaching Solution): 7.3 (Neutral). Our aerogel is chemically inert, providing zero-corrosion protection for high-value metal piping systems. Standard Color: White.

2.Storage & Shelf Life: Store in a dry, ventilated environment away from chemical solvents. Due to its stable nanoporous silica structure, the product has an indefinite shelf life when kept in original sealed packaging and dry conditions.

3.Environment & Safety: 100% Asbestos-free, Low VOC, and SVHC-free (REACH/RoHS compliant). Safe for both industrial and indoor residential applications.

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