

TECHNICAL DATA SHEET — MGM AEROGEL 650 BLANKET

SKU: MGM-AGL-650 | Family: Aerogel | Supplier: MG Materials

Product Overview

MGM Aerogel Blanket is a flexible, hydrophobic, nanoporous silica aerogel insulation reinforced with non-woven fibres. It delivers 2–4× the thermal performance of conventional insulation at a fraction of the thickness, with excellent durability across cryogenic and high-temperature service.

Typical Applications

- Industrial pipe and equipment insulation
- LNG / cryogenic storage and transfer lines
- Refineries, petrochemicals, and offshore platforms
- District heating and steam piping
- Power generation and process industries

Key Features

- Ultra-low thermal conductivity ($\lambda \approx 0.018 \text{ W/m}\cdot\text{K}$ @ 25 °C)
- Hydrophobic — repels water, breathable to vapour
- Flexible, easy to cut and install around complex geometries
- High-temperature service to 650 °C (depending on grade)
- Reduces insulation thickness by 50–80 % vs. conventional

[Product Image]

Technical Properties

Properties	MGM-AGL-650	Unit
Bulk Density	160–240	kg/m ³
Service Temperature (min)	-50	°C
Classification / Max Service Temp	650	°C
Short-Term Service Temp	1400	°C
Specific Heat (Cp)	1050	J/kg·K
Classification	ASTM C1728 Type III, Grade 1A	—
Thermal Conductivity (λ)	—	—
λ @ 0°C	0.018	W/m·K
λ @ 25°C	0.018	W/m·K
λ @ 50°C	0.0222	W/m·K
λ @ 100°C	0.023	W/m·K
λ @ 200°C	0.028	W/m·K
λ @ 300°C	0.035	W/m·K
λ @ 400°C	0.047	W/m·K
λ @ 500°C	0.058	W/m·K
λ @ 600°C	0.068	W/m·K
Typical Application	High-temp pipe & vessel insulation	—
Additional Notes	Flagship hot-side aerogel; 650°C continuous service	—