SİLİCA AEROGEL GRANUL

FIRE AND THERMAL INSULATION
NANO TECHNOLOGICAL HIGH HEAT RESISTANCE AND INSULATION

SUPER INSULATOR

Nano-technology-based superhydrophobic silica Izogin Aerogel provides superior performance compared to traditional insulation materials, operating within a temperature range of -200°C to +650°C.

SUPERHYDROPHOBICITY: With a surface contact angle of 165°, it prevents water and moisture from affecting thermal insulation performance.

SOUND INSULATION FEATURE: Has the capacity to absorb sound up to 25 dB.

NON-COMBUSTIBILITY: Maintains its hydrophobic properties up to 650°C without deterioration.

TRANSPARENCY: Transparency level can be adjusted according to project requirements.

THERMAL BARRIER FEATURE: Has a thermal conductivity of 12–16 mW/m·K.

EXCELLENT ENERGY DAMPING. VIBRATION BARRIER FORMATION: Can block noise caused by mechanical vibrations in the 1000–2000 Hz frequency range.

OVER 90% AIR PERMEABILITY: Provides high-performance thermal insulation under all conditions.

OLEOPHILIC: Used in the cleanup of oil spills, heavy metals, and hazardous chemicals.

POROUS STRUCTURE: One gram of aerogel has an approximate surface area of 700 m², making it ideal for filtration and capturing space dust.

HUMAN & ENVIRONMENTALLY FRIENDLY: Harmless to human health. When disposed of, it has no negative environmental impact. Also used in the cosmetics industry to regulate skin oil balance.

TECHNICAL SPECIFICATIONS

• Operating Temperature: -200 °C ~ +650 °C
Density: 0.115 g/cm³
Thermal Conductivity Coefficient: 0.012 – 0.016 W/m·K
Porosity: 90–95% (in powder form)
Color: White or Light Cream
Water Vapor Permeability: 5 – 5.5 μ
Fire Classification: A2-s1-d0
Compressive Strength: 40 kPa at 10% (for Izogin Aerogel Granules and Powder)
Environmental Impact: 5.4 kg CO? per m² (1 cm thickness)
Heat Capacity: 1000 J/kg·K (for Izogin Aerogel Granules and Powder)
pH: 8
Sound Absorption Coefficient (500 Hz): -20 dB-
Specific Surface Area: 700–800 m²/gGranule Size: Min. 2 mm – 4 mm
Water Repellency: Superhydrophobic
Dielectric Constant: k < 2