INSULATION TECHNOLOGIES

SILICA nanoAEROGEL FEATURES | TECHNOLOGY

Discover the World's Highest Performance Thermal Insulation
For Sustainable Development.

#1 ALL IN ONE

- Highest Technology
- Global Recognition
- Lowest thermal Conductivity
- High Flexibility
- Water resistance
- Fire Resistance
- Acoustic Proof
- Macrobiotic resistance
- Bugs resistance
- Warranty Certificate
- Dimensional Stability
- Very Low Density
- Service Life +20 Years
- Save Space
- Reducing Cost
- Value for Money
- Competitive Price

Working within the construction industry for years has given us domain knowledge and expertise in insulation technologies.
It is our advantage to be the first movers of products designed to create a revolution.
It was manufactured to serve the industries through technological evolutions, and there will be no limits to what **AEROGELS** can do when it comes to thermal insulation in any sector of construction.

- Muhaned Salama, Director, Wasaq Group Co.

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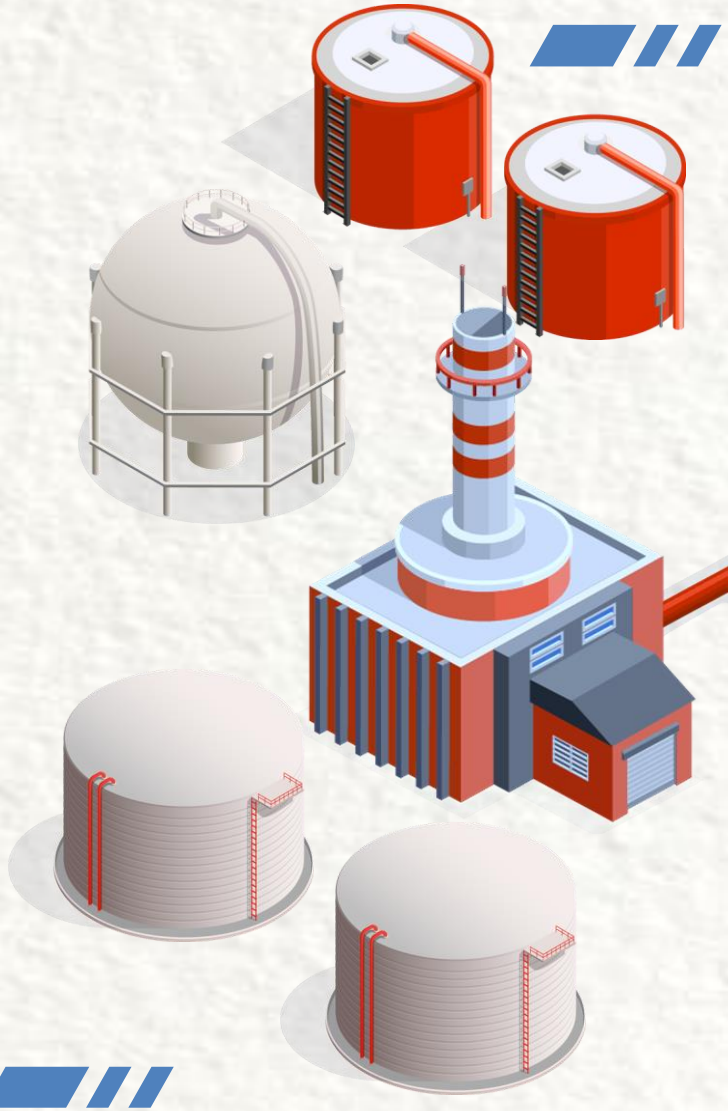


GOVERNMENT BUILDINGS - USA

THE PENTAGON -

Ninety thousand square feet of Aerogel insulation was installed in the interior walls of Wedge 5-2 in the Pentagon during its renovation.
It is anticipated that there will be a savings in energy as well as a reduction in CO2 emissions

AUTOMOTIVES

CHEVROLET -

Aerogel used for Thermal insulation transmission tunnel of the Corvette (C7). The demand for Aerogel is growing from the automotive segment owing to their unique properties like excellent thermal resistance, enhanced acoustic insulation, light weight, reduced thickness, and fire and water resistance.

AEROSPACE - USA

NASA -

Used Aerogel for thermal insulation for the Mars rovers.
NASA developed the idea of using the insulating properties of Aerogel to build spacesuits. Since that time, this idea has been adapted for the use in apparel as Aerogel is flexible enough to retain its insulating properties at high and low temperatures.

AEROSPACE - CHINA

CASC -

New generation of large-capacity carrier rocket "Long March V“ used the high-performance nanoAEROGEL thermal insulation for the rocket gas pipeline system.

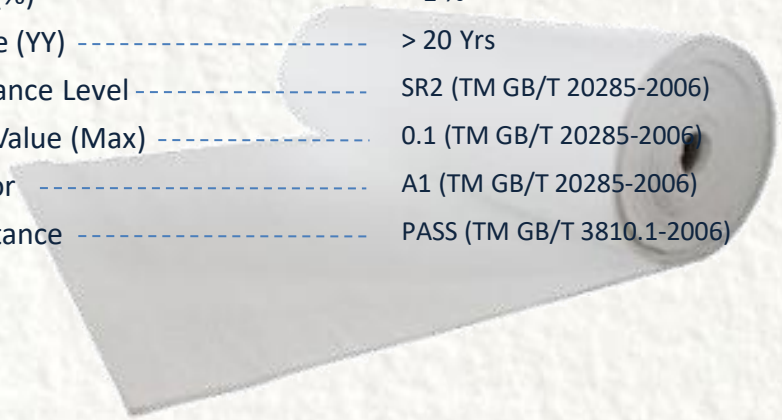
& Much more..

COMMON APPLICATIONS

Aerogel Blankets are manufactured in a wide variety of thicknesses and densities to suit most requirements, suitable for general application in residential, commercial and industrial buildings.

TECHNICAL PARAMETERS HIGHLIGHTS

Thickness [mm]	3, 6, 10
Width [mm]	1400 / 1500 (Customizable)
Nominal Densities [kg/m ³]	200 ±20
Standard Color	White
Hydrophobicity (%)	> 99.8 %
Temperature Range (C°)	(- 200 ~ +600)
Thermal Conductivity	> 0.016 W/m-k
Shrinkage Rate (%)	> 1 %
Long Service Life (YY)	> 20 Yrs
Smoke Performance Level	SR2 (TM GB/T 20285-2006)
Smoke Toxicity Value (Max)	0.1 (TM GB/T 20285-2006)
Burning Behavior	A1 (TM GB/T 20285-2006)
Corrosion Resistance	PASS (TM GB/T 3810.1-2006)



PACKING AND STORAGE

Aerogel is shrink-wrapped in polyethylene sheets for ease of handling, transportation, storage and identification. Products should be stored indoors or under a waterproof covering

APPLICABLE ASTM STANDARDS

[E84-2018]
Method for Surface Burning Characteristics of Building Materials.

[C1728-17 Sections 7.1&7.9], [C411-19], [C447-15]
Maximum use Temperature & Maximum Exothermic Temperature.

[C1728-17 Sections 7.3], [C117-19]]
Apparent Thermal Conductivity

AEROSPACE TECHNOLOGY AVAILABLE FOR YOU TODAY!

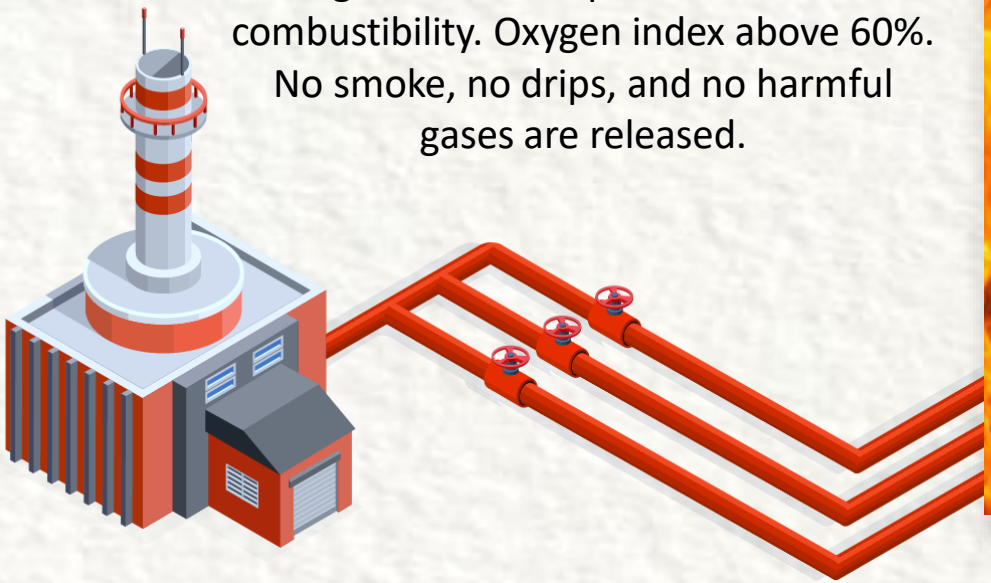
1. Longest service life, Same as the building's service life. can be used under high temperature to meet different heat insulation requirements.
2. Lowest thermal conductivity coefficient, less than 0.02W/m·k at room temperature. can be used under high temperatures to meet different heat insulation requirements.
3. Thinnest and lightest thermal insulating material and high resistant to high pressure.
4. Water-proof and moisture-proof, easy to store, Environmentally friendly, Non-toxic and non-corrosive
5. Superior fireproof performance with safety class of Gr.A1. it’s widely used on pipes, tanks and furnaces etc. at a temperature of above 600°C.

AEROGEL Is a Life Insurance Product

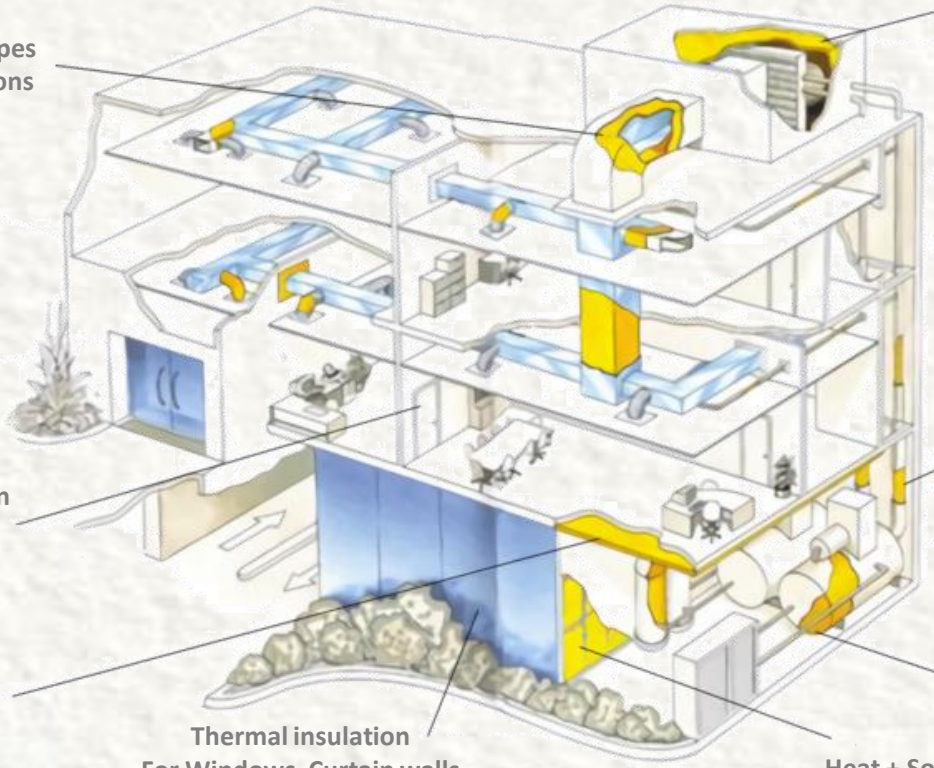
Comply with fire safety regulations with our range of tested & certified insulation.

Flame retardant performance "Building class A1/ UL94V0"

High level of fire protection: non-combustibility. Oxygen index above 60%. No smoke, no drips, and no harmful gases are released.

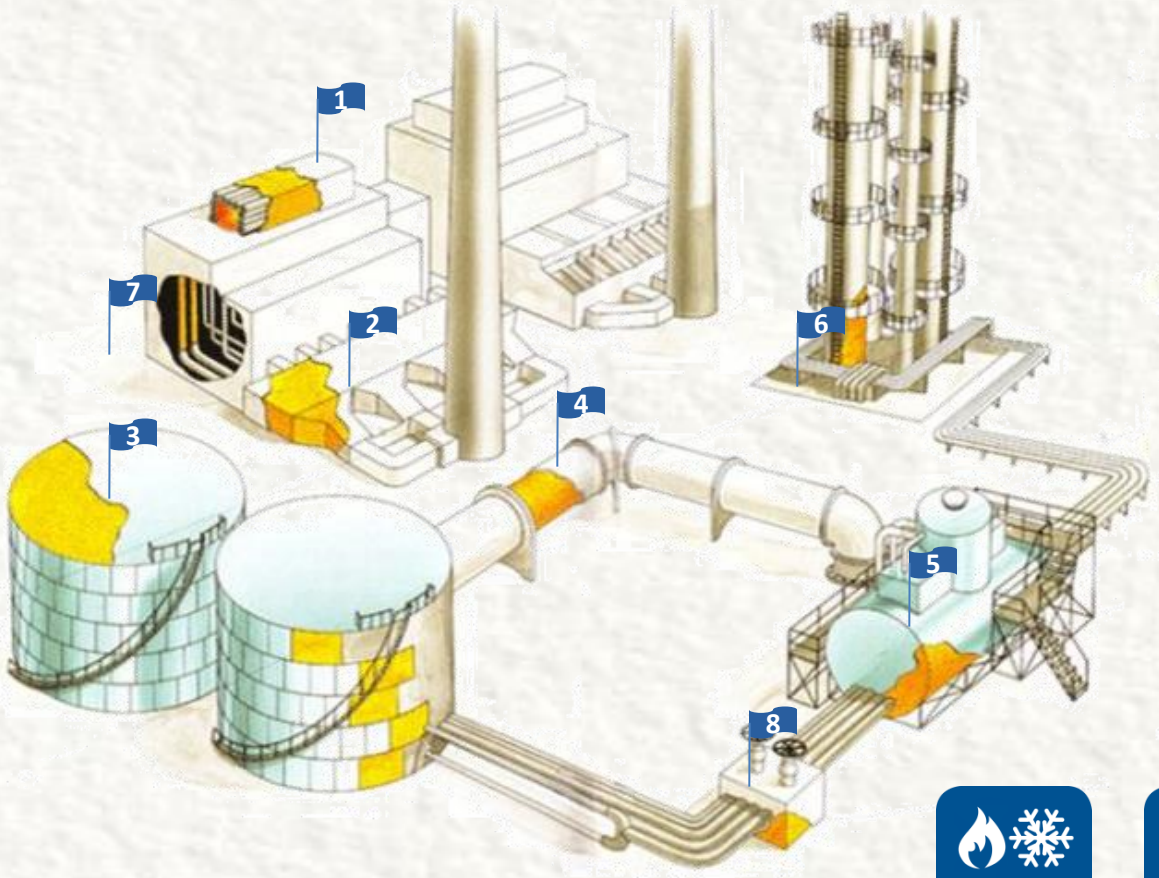


ADVANTAGES OF AEROGEL IN RESIDENTIAL INSULATIONS



- Lowest Thermal Conductivity
- Highest Fire Resistances
- Acoustic sounds Poof
- High Sustainability & Durability
- Water & Moisture Resistance

THERMAL INSULATIONS IN INDUSTRIAL APPLICATIONS – CHEMICAL PLANT



1. Boiler Fairness
2. Ventilation
3. Storage Tanks
4. Process Piping
5. Vessel Insulation
6. Distillation Column Insulation
7. Gas Turbine
8. Valve Insulation

Low thermal conductivity

Fire resistant

Electrical insulation

Dimensional stability

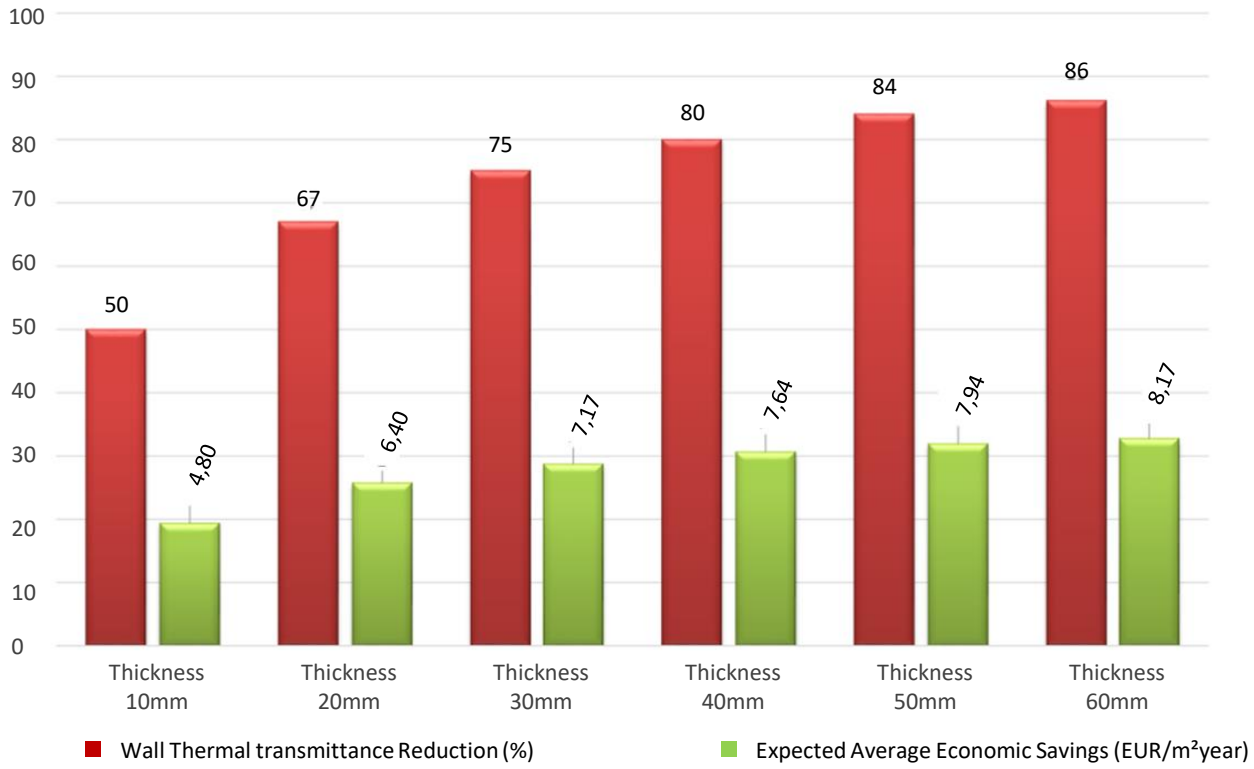
GROUP

AEROGEL

ANALYSIS OVERVIEW & COMPARISONS

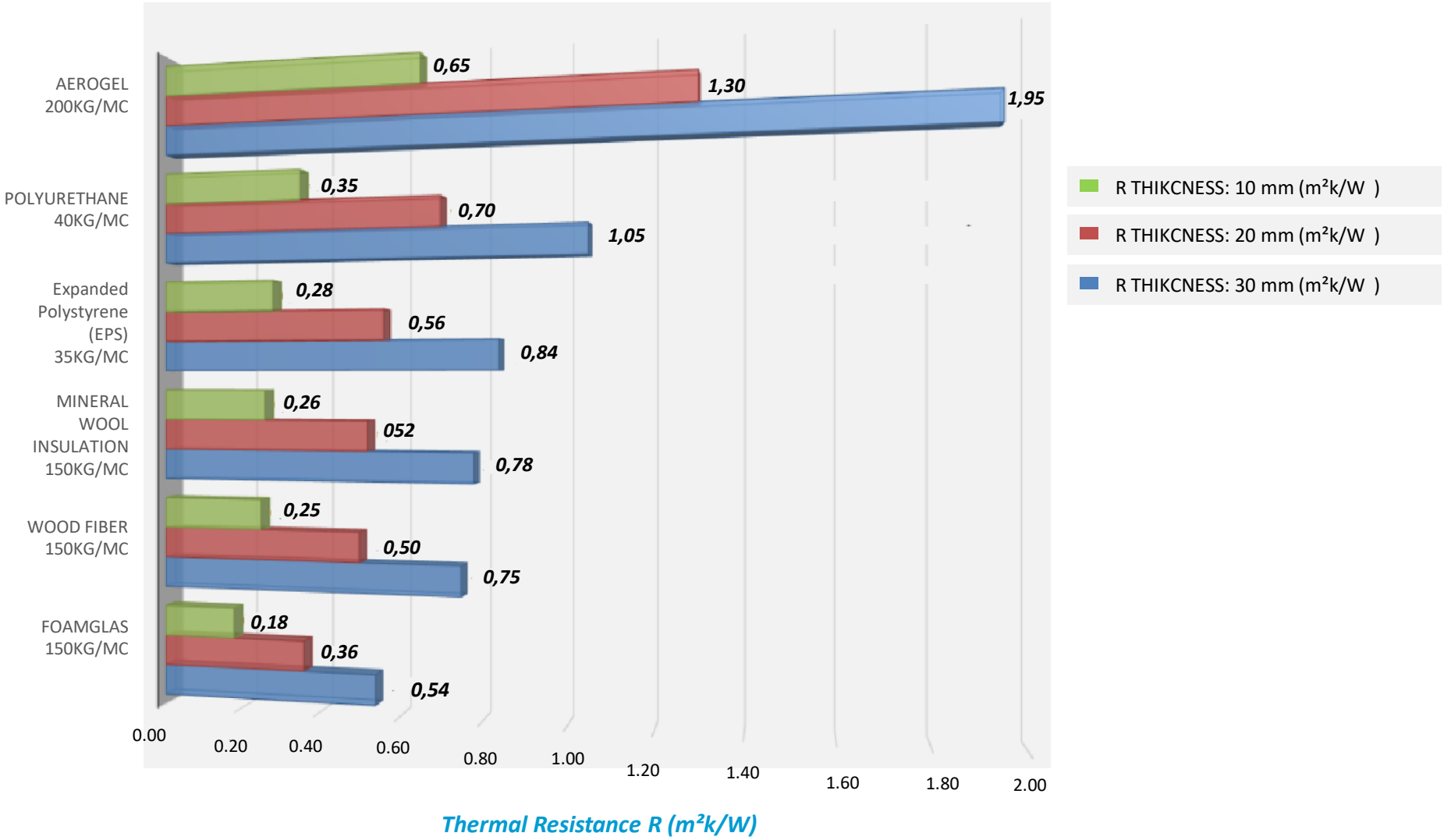
The performance of AEROGEL Insulator product line have an extremely low values of conductivity and thermal diffusity made AEROGEL unique among all the insulators on the market, guaranteeing high performance in all insulation requirement and conditions in all seasons.

Thermal Transmittance According to the AEROGEL Thickness



According to (EU ISO 6964:2017) calculation methods provides thermal resistance and thermal transmittance of building components and elements, excluding any components which involve heat transfer through which air is designed to permeate (ec. Doors, windows)
The AEROGEL is able to reduce by 50% the transmittance of a wall with initial thermal resistance of 0.45 m²k/W (corresponding to a U of approximate 1.60 W/m²K) 67% with a thickness of 22mm, 75% with a thickness of 33mm, 80% with a thickness of 44mm, 84% with a thickness of 55mm

Thermal Resistance AEROGEL Vs. Traditional Insulation



THANKS

Do you have any questions?
muhaned@wsqgroup.com

GET IN TOUCH

If you're looking for ordering a large quantity of our premium Aerogel insulations at a wholesale price, or If you're considering **AEROGEL** for your insulation upcoming project,
Please call us anytime at **+965 665 99227.**

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