

THERMBLOCK

E C O T H E R M A L I N S U L A T I O N C O A T I N G



About THERMBLOCK

Excellent multi-functional paint that provides heat shielding, insulation, and heat retention just by painting

THERMBLOCK creates a thermal barrier on the painted surface by using special acrylic resin, large acrylic beads, and oxidized titanium, which insulate against external heat and retain warmth inside.

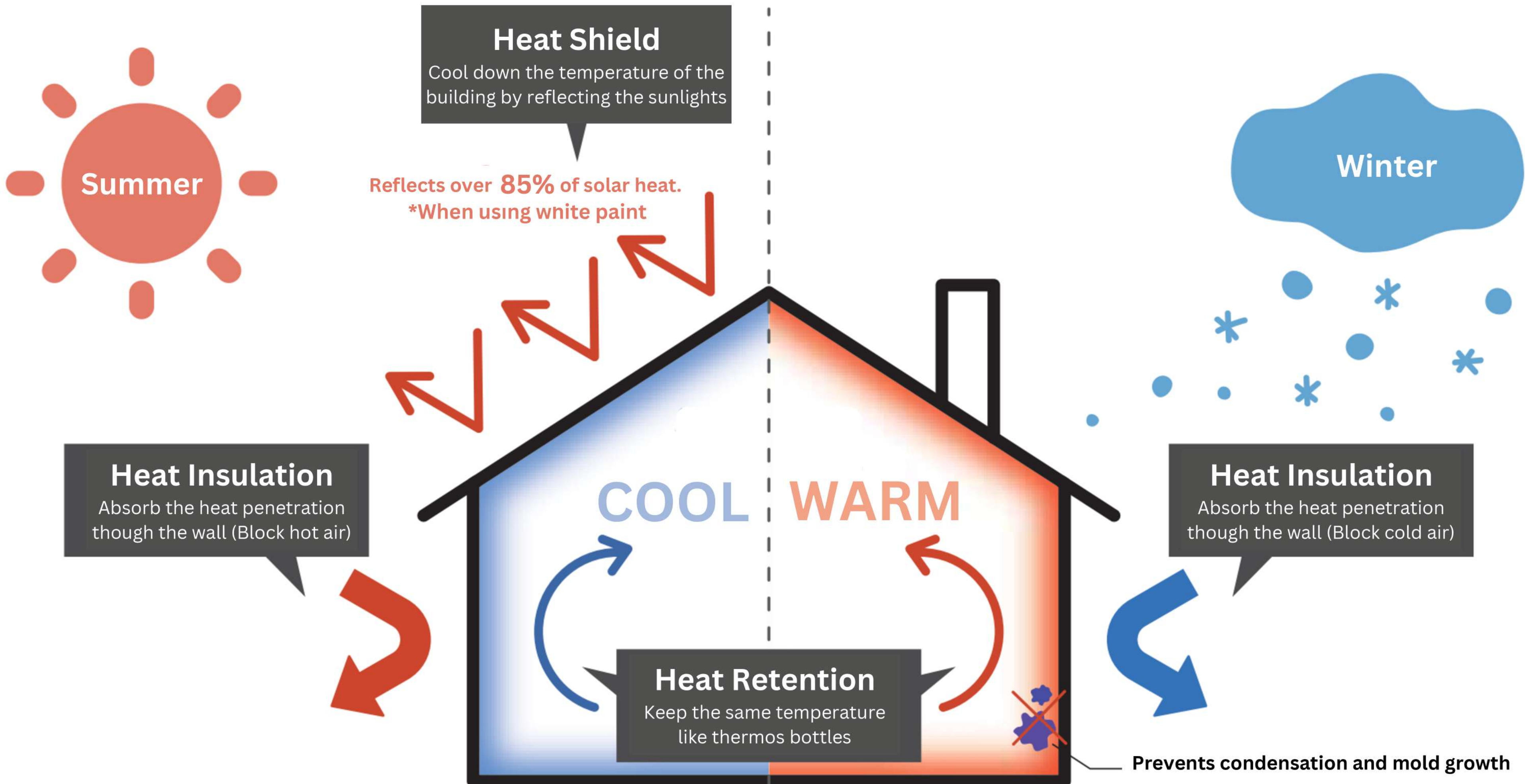
**Registered on New Technology
Information System (NETIS)**
Registration Number: KT-160047-A

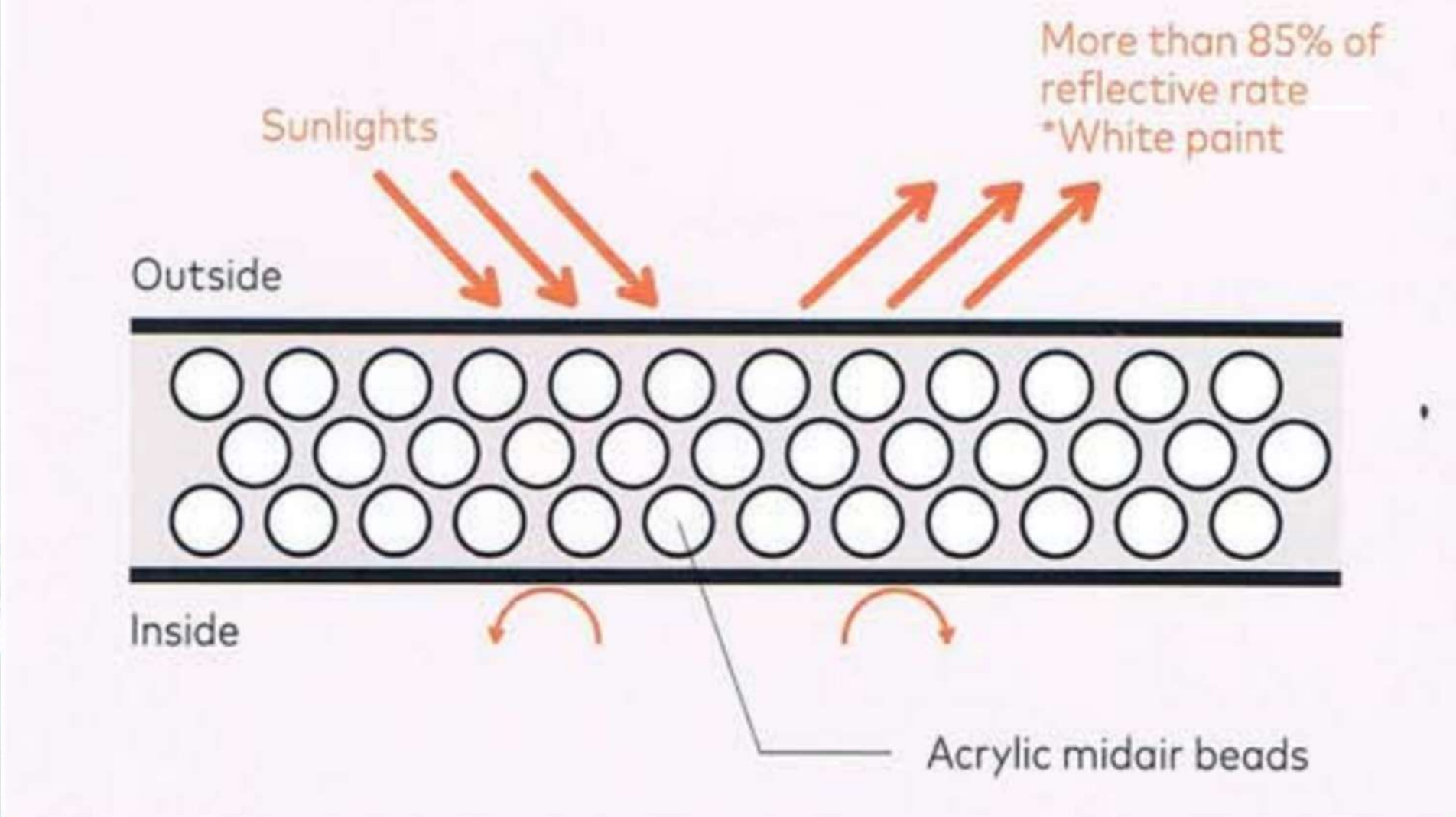
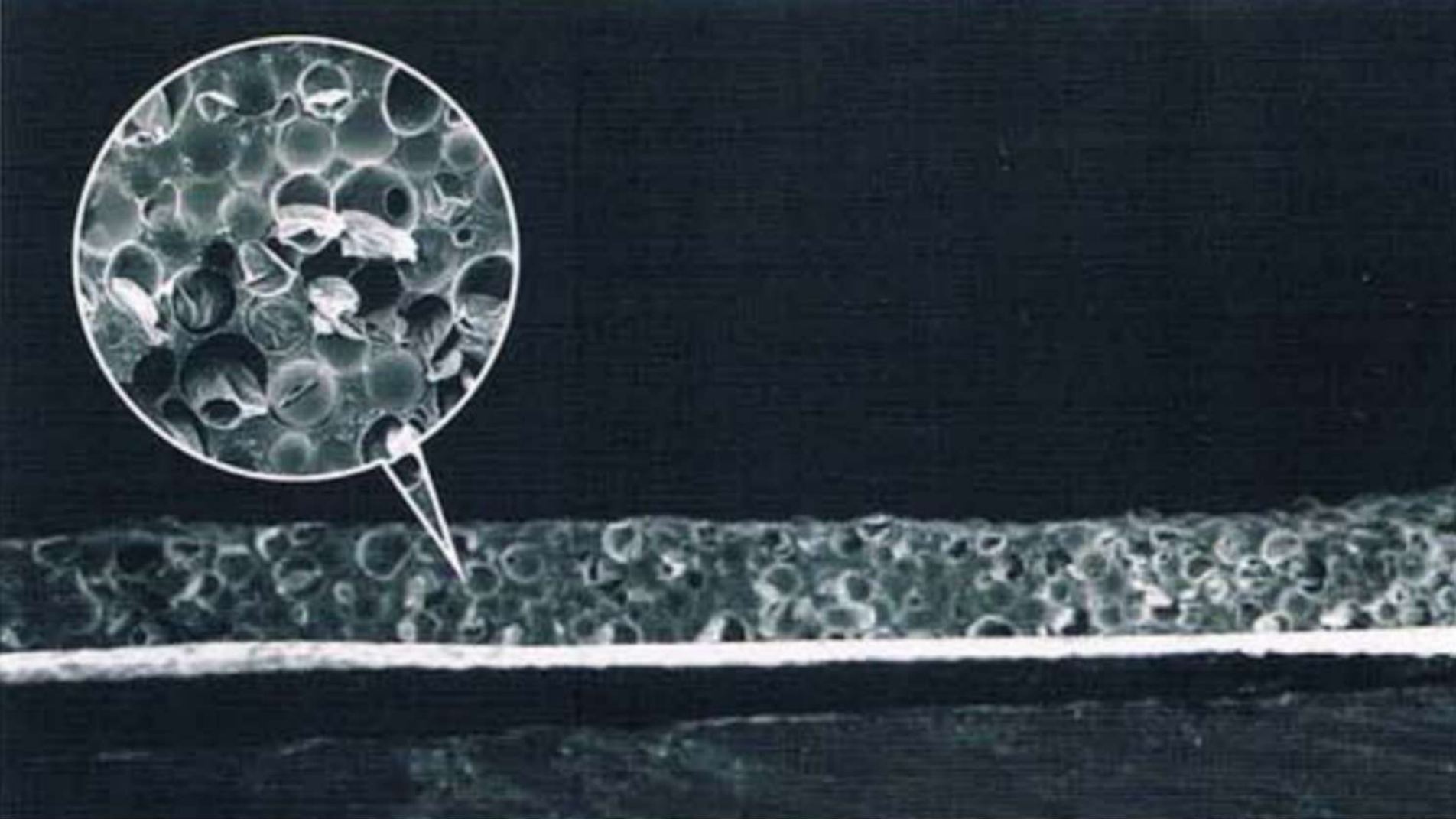
**ISO9001:2015
JISQ9001:2015
NO.QA165292**

F☆☆☆☆

Four Stars Acquired

*THERM INTERIOR





How THERMBLOCK Works

THERMBLOCK forms a thermal barrier on the applied surface, maintaining a comfortable indoor temperature while achieving optimal energy savings.

Special large acrylic hollow beads + special acrylic resin + special oxidized titanium

THERMBLOCK contains the highest amount of large acrylic hollow beads in the world (volume ratio: approximately 50%).

The 110µm large hollow beads, exclusive to THERMBLOCK, allow the required film thickness to be achieved with just two coats, ensuring high insulation performance. Also has over 200% stretchability, making it resistant to cracking.

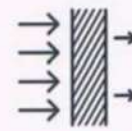
Function of THERMBLOCK



Heat Shield

Blocks more than 85% of the reflective rate

The heat-shielding function (heat reflection) and the insulation function (heat transfer prevention) are the top features that THERMBLOCK proudly offers.



Heat Insulation

High thermal insulation by the large hollow beads

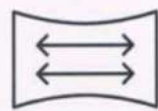
With the world's best-coated film space ratio by the special large hollow beads, THERMBLOCK achieves high thermal insulation.



Heat Retention

Best heat retention by high content of the large hollow beads

With the high content of the large hollow beads and radiation heat (directly transferred heat) of acrylic resin, the building can stay cool in summer and warm in winter.



Stretchable

High stretchability materials

THERMBLOCK achieves more than 200% of the expansion-contraction ratio, which prevents the building from wall cracks. It can be applied on tents and fabric as well.



Durable

Long durability of over 15 years

*Test results by Japan Paint Inspection and Testing Association

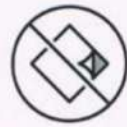
Successfully passed 3,000 hours in an accelerated weathering test, which artificially replicates indoor and outdoor conditions to accelerate deterioration and predict the lifespan of products and materials.



Energy usage for
AC & Air Heating

10-40%
Reduced

Function of THERMBLOCK



Highly Adhesive

High Adhesion: Over 3 times the JIS standard

THERMBLOCK's high adhesibility has been proven by Japan Industrial Standard. Its strong adhesive power allows for wide coverage with a small amount of paint, making it very economical.



Water Resistant

Waterproof & moisture permeability

THERMBLOCK is suitable for preventing water leaks and rain leaks. On the other hand, it allows moisture to pass through, helping to create a comfortable internal environment.



Anti-sweating

Condensation Prevention: Effective to store radiation heat

As the heat retention function by the special large hollow beads and acrylic resin, THERMBLOCK prevents the coated surface from getting cold, which suppresses dew drops.



Sound Insulation

Approximately 10dB of sound insulation

The soundproofing effect of the special large acrylic hollow beads blocks sound leaking, noise from roofs and walls, as well as incoming sounds and rain noise.



Safe

Environment-friendly: F acquired

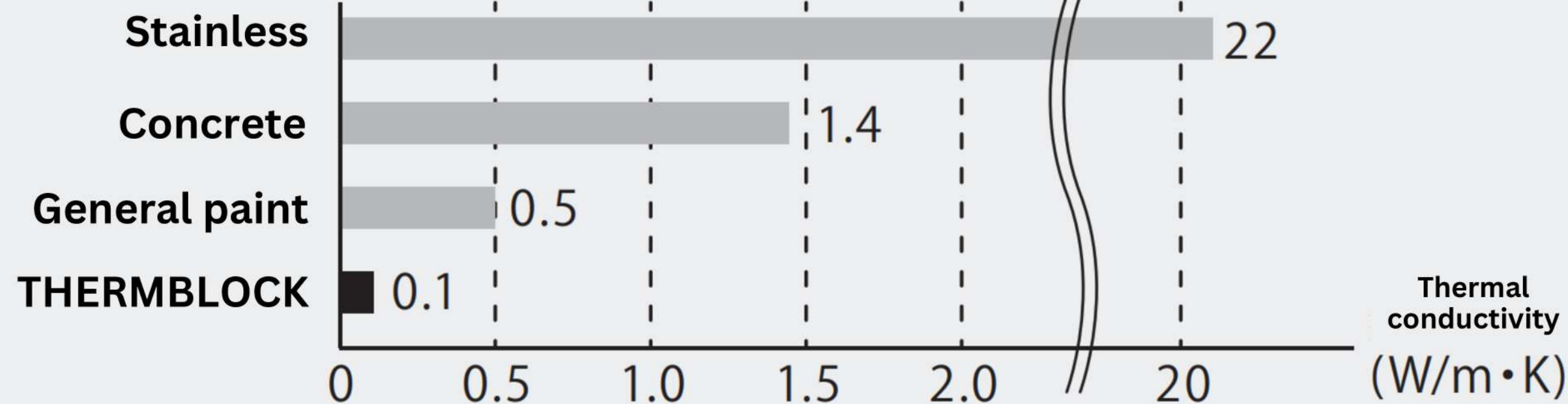
THERMBLOCK diffuses no formaldehyde, which is toxic to people. It is a human-friendly paint.



THERMBLOCK Comparison

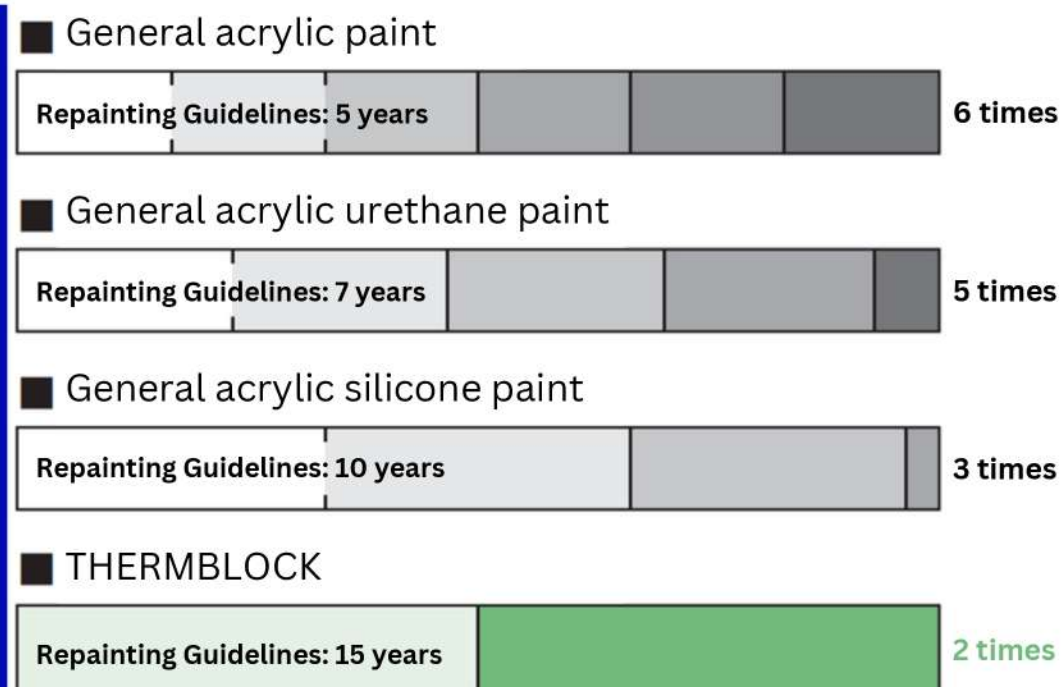
01.

**Insulation
Function and
Thermal
Conductivity**



02.

**Repainting
Comparison
Over 30 Years**

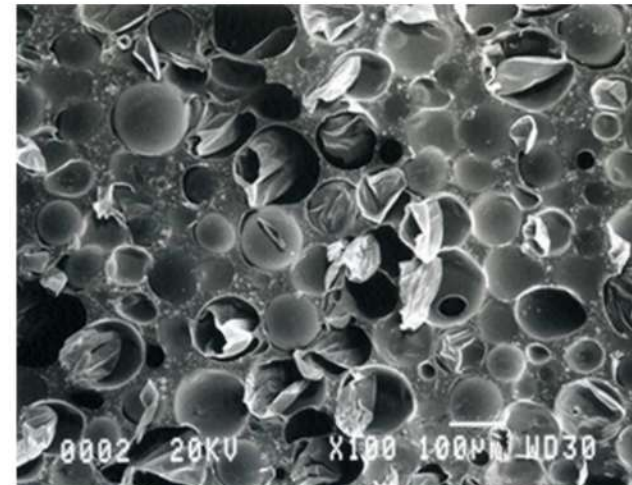
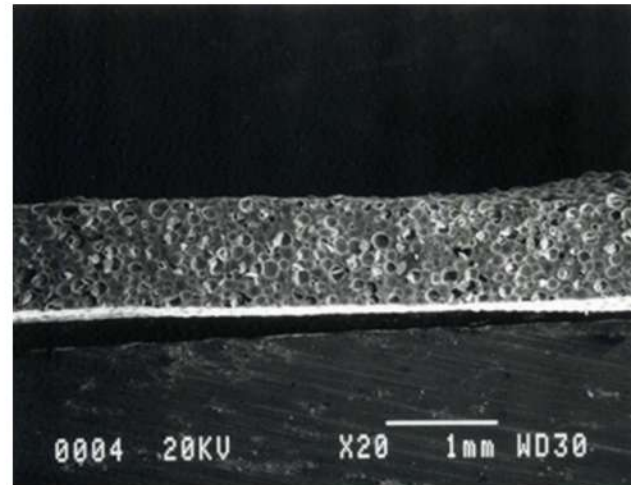


03.

**Function
Comparison**

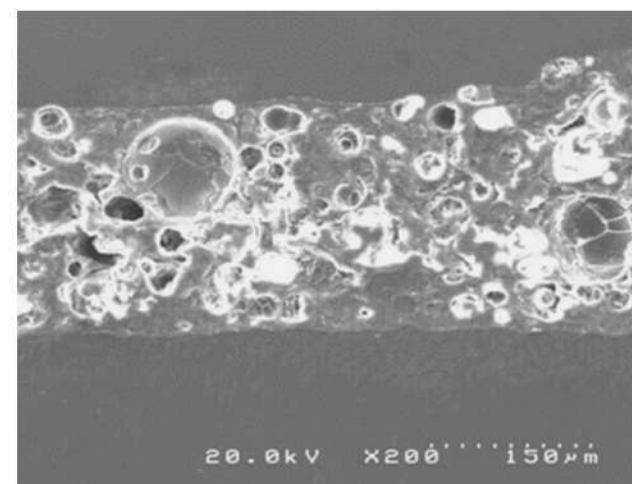
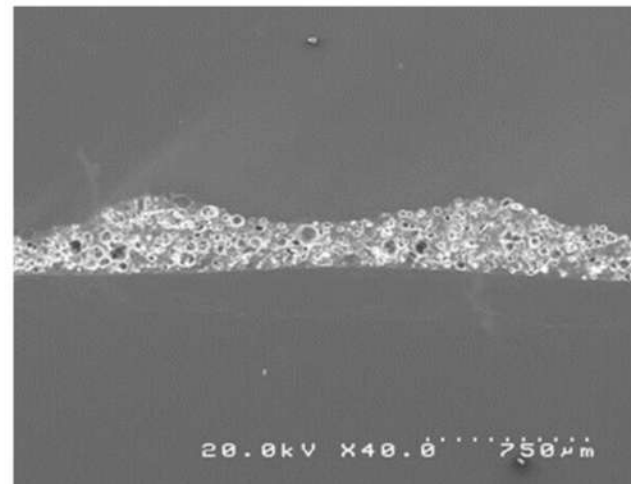
	Thermblock	Competitor
Stretchability	⊙ Does Not Crack	✕ Cracks
Applicable Materials	⊙ Applicable on tent	○ Not Applicable on tent
Durability	⊙	○
Price	⊙	△

THERMBLOCK Comparison



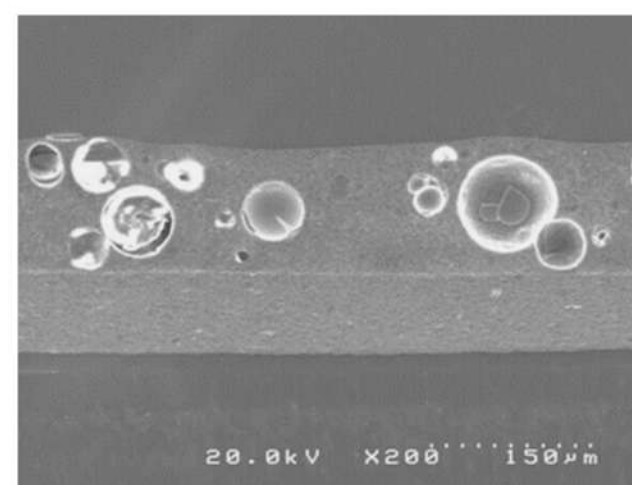
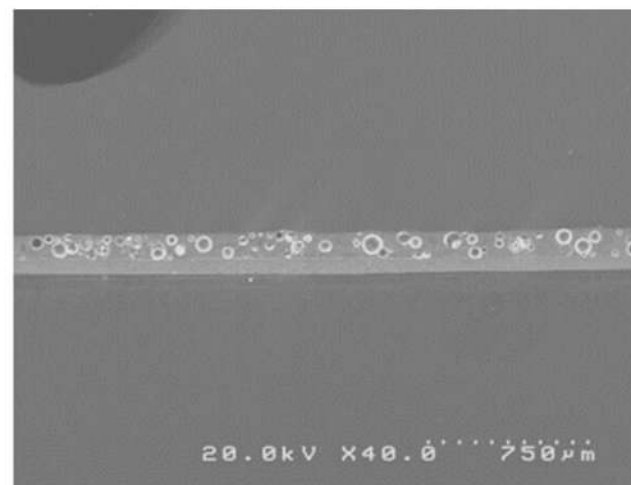
THERMBLOCK

- Large acrylic hollow beads volume ratio 50%
- Perform better than another product because of high beads volume
- Over 200% stretchability, making it resistant to cracking.



Competitor Product 「G」

- Standard ceramic hollow beads volume ratio 50%
- The paint film is not flexible.
- Low elongation of about 120%, making it prone to cracking



Competitor Product 「M」

- Low beads volume ratio
- Contains almost no beads

THERM INTERIOR

THERM INTERIOR is a multifunctional coating developed for interior use, allowing users to fully experience the effects of THERMBLOCK on indoor spaces.

01.

It offers excellent heat shielding, insulation, and heat retention for indoor. Maintains suitable temperatures for all seasons.

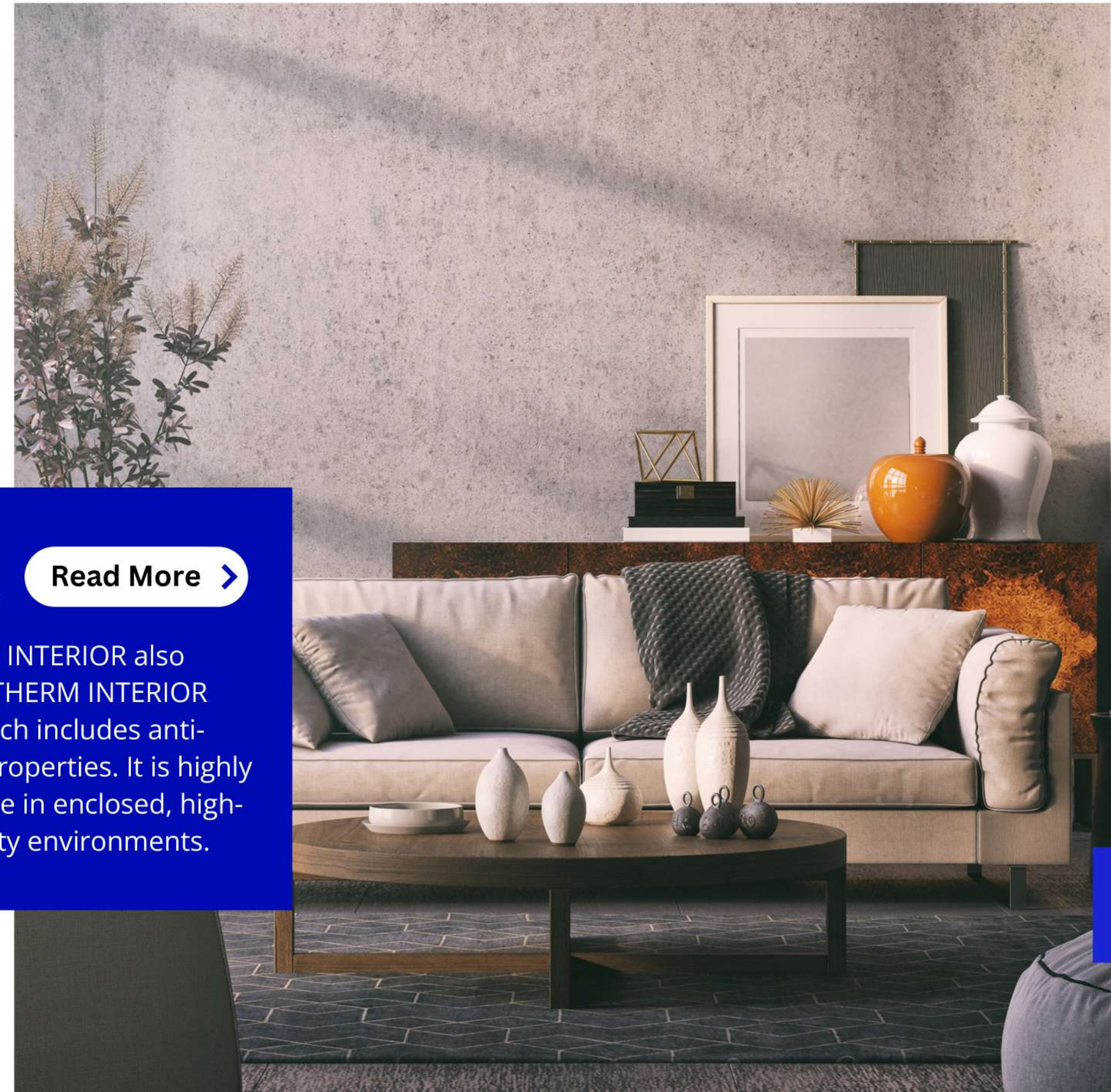
02.

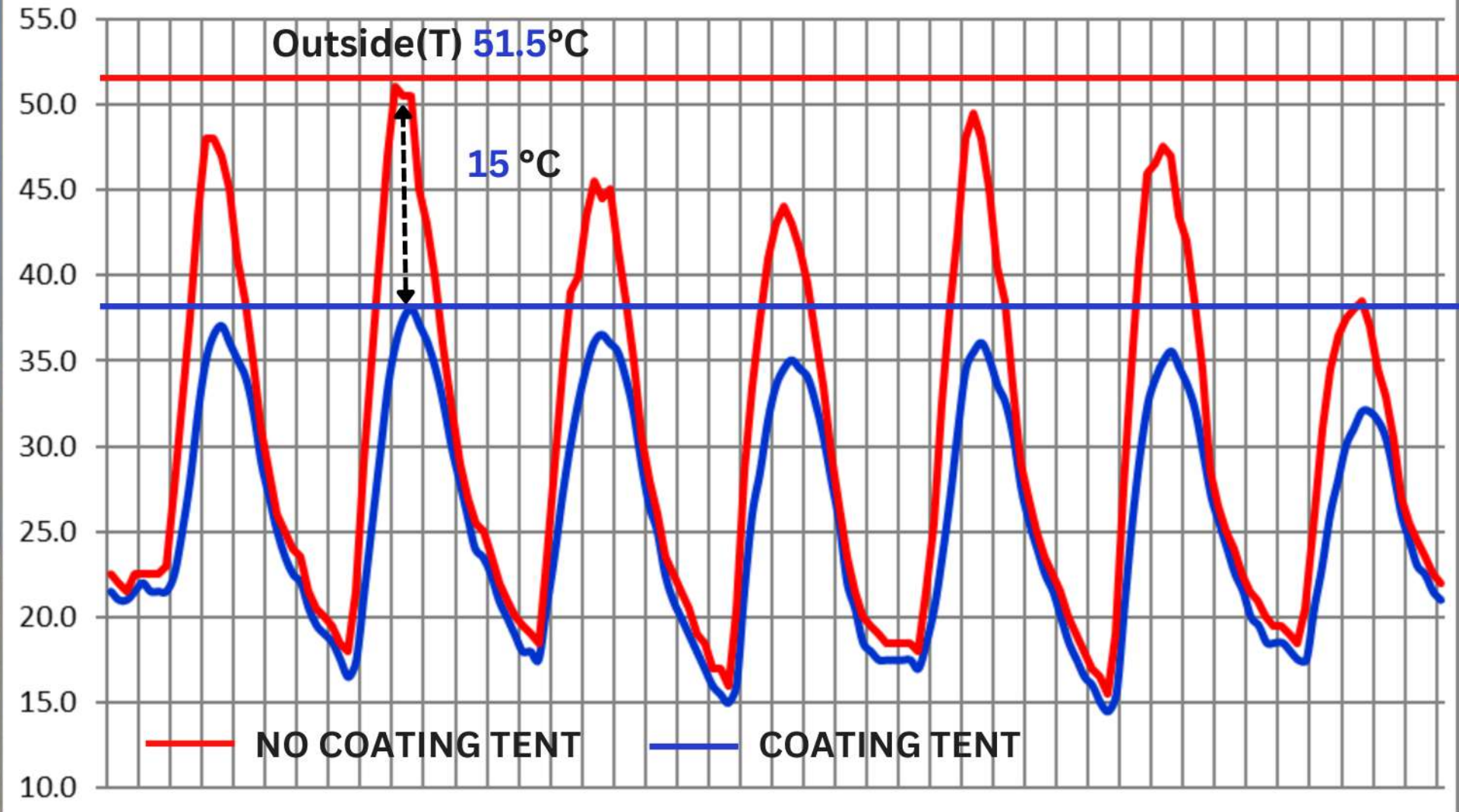
It is effective in high-seal buildings, such as apartments, where it offers condensation prevention, soundproofing, durability, and light reflection.

03.

[Read More >](#)

THERM INTERIOR also offers THERM INTERIOR +A, which includes anti-mold properties. It is highly effective in enclosed, high-humidity environments.





Fabric Paint

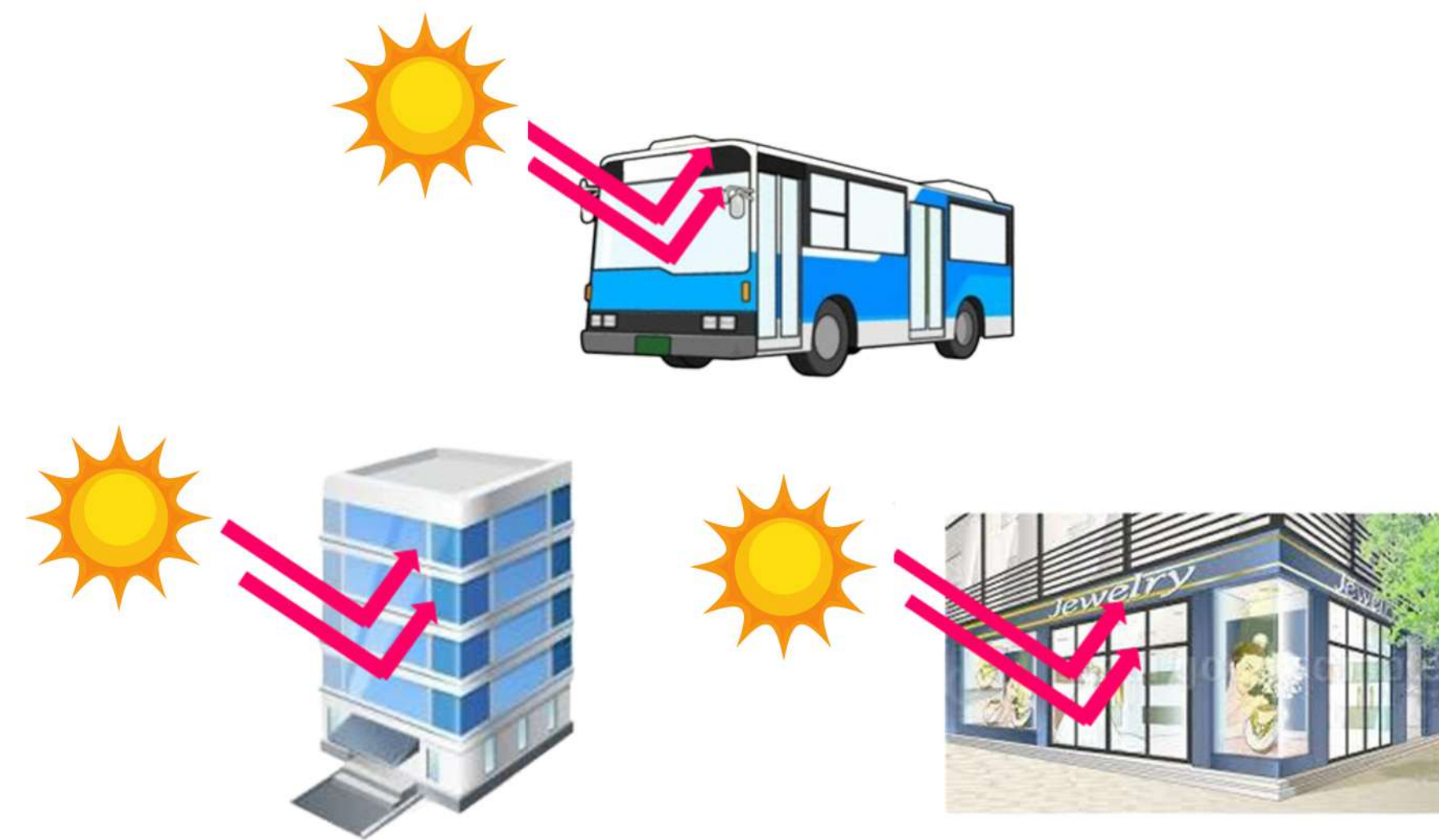
THERMBLOCK is the only beads-containing paint that can be coated even on the fabric due to its elastic effect by special resin binding technology

A test was conducted at a Refugee Camp in Jordan comparing temperatures between a THERMBLOCK-painted tent and one without. The result showed there were 15°C difference in temperature .

THERMBLOCK: Has heat block and can be used as waterproof fabric paint

Competitor product 「G」 : Has heat block but cannot be used as fabric paint

Regular paint: No heat block but can be painted on fabric



THERM GLASS COAT

Heat Ray Blocking/Energy-Saving Coating for Glass Windows

- Blocks infrared rays by 65%
- Blocks UV rays by 95% or more
- Visible light transmission of 85%

Reduction of Condensation

Eco-clear functions to effectively reduce condensation, which is a reason for generating mold and ticks.

High Durability

It has a hard surface that prevents damage and scratches during cleaning, which stands up to long-term use.

Reduction of Diffused Reflections

The invisible surface roughness of glass is smoothed out with the coating agent, thereby reducing diffused reflections and flickering

Product Lineup



THERMBLOCK

A multi-functional hybrid paint formulated with special acrylic resin, large acrylic hollow beads (50% by volume), and titanium dioxide in a golden ratio, providing heat-shielding, insulation, heat retention, and soundproofing functions

Use: Main material
Content: 11kg
Dimension: < 30m²
Other: Water-based



THERMBLOCK (Shielding)

A custom version of THERMBLOCK has increased the amount of special titanium for enhanced opacity. This enhanced version is used for thermal management on building roofs, GHP and air conditioning outdoor units, rooftops of buildings, and outdoor equipment like generators. While regular heat-shielding paints are only effective in the summer, THERMBLOCK provides year-round benefits.

Use: Main material
Content: 11kg
Dimension: < 30m²
Other: Water-based



THERM BASE

A sealer designed to ensure the performance of the THERMBLOCK series. It is primarily composed of an acrylic resin emulsion from the same series as THERMBLOCK and can be applied to a wide range of substrates, excluding water-repellent surfaces.

Use: Base
Content: 15kg
Dimension: 150m² or more
Other: Water-based



THERM TOP

A semi-gloss acrylic resin emulsion clear coat prevents dirt from rainwater adhering to walls/roof and protects the coating film of the main material. It is durable enough for heavy foot traffic, making it suitable for parking lots, sidewalks, and playgrounds.

Use: Finish coat
Content: 15kg
Dimension: < 150m²
Other: Water-based



THERM INTERIOR

A high-performance interior coating formulated with special acrylic resin, large acrylic hollow beads (50% by volume), and titanium dioxide in a golden ratio, providing heat-shielding, insulation, heat retention, and soundproofing functions.

THERM INTERIOR <+A>

A water-based antibacterial and anti-mold thermal insulation multifunctional paint also offers condensation prevention and soundproofing capabilities.

Use: Main material
Content: 11kg
Dimension: < 30m²
Other: Water-based

Color Lineup

0001
Soft White

0002
Ivory

0003
Soft Brown

0004
Warm Gray

0005
Beige

0006
Silver Gray

0007
Cloud Blue

0008
Steel Gray

0009
Light Gray

- Please contact us for custom-ordered color
- The actual painted color may be slightly different from the color samples
- Please note that the color samples may be changed without pre-notice



Portfolio



THERMBLOCK Video



Introduction Video (English)



Temperature Comparison Video

Global Export Sales & Marketing Representative

Contact Us

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