



THERMBLOCK

ECOTHERMAL WATER-BASED INSULATION PAINT



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Excellent multi-functional paint that realizes heat shield, insulation and heat retention just by painting

THERMBLOCK creates thermal barrier on the painted area by using special acrylic resin, large acrylic midair beads and oxidized titanium, which insulates heat from outside and keep warmth inside.

Registered on New Technology Information System (NETIS)

Registration Number: KT-160047-A

ISO9001:2015
JISQ9001:2015
NO.QA165292

F☆☆☆☆
Four Stars Aquired
*THERM INTERIOR

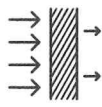
Functions of THERMBLOCK



Energy usage for
AC & Air Heating
10-40%
Reduced



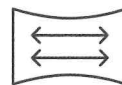
Heat Shield



Heat Insulation



Heat Retention



Stretchable



Durable



Highly Adhesive



Waterproof



Anti-sweating

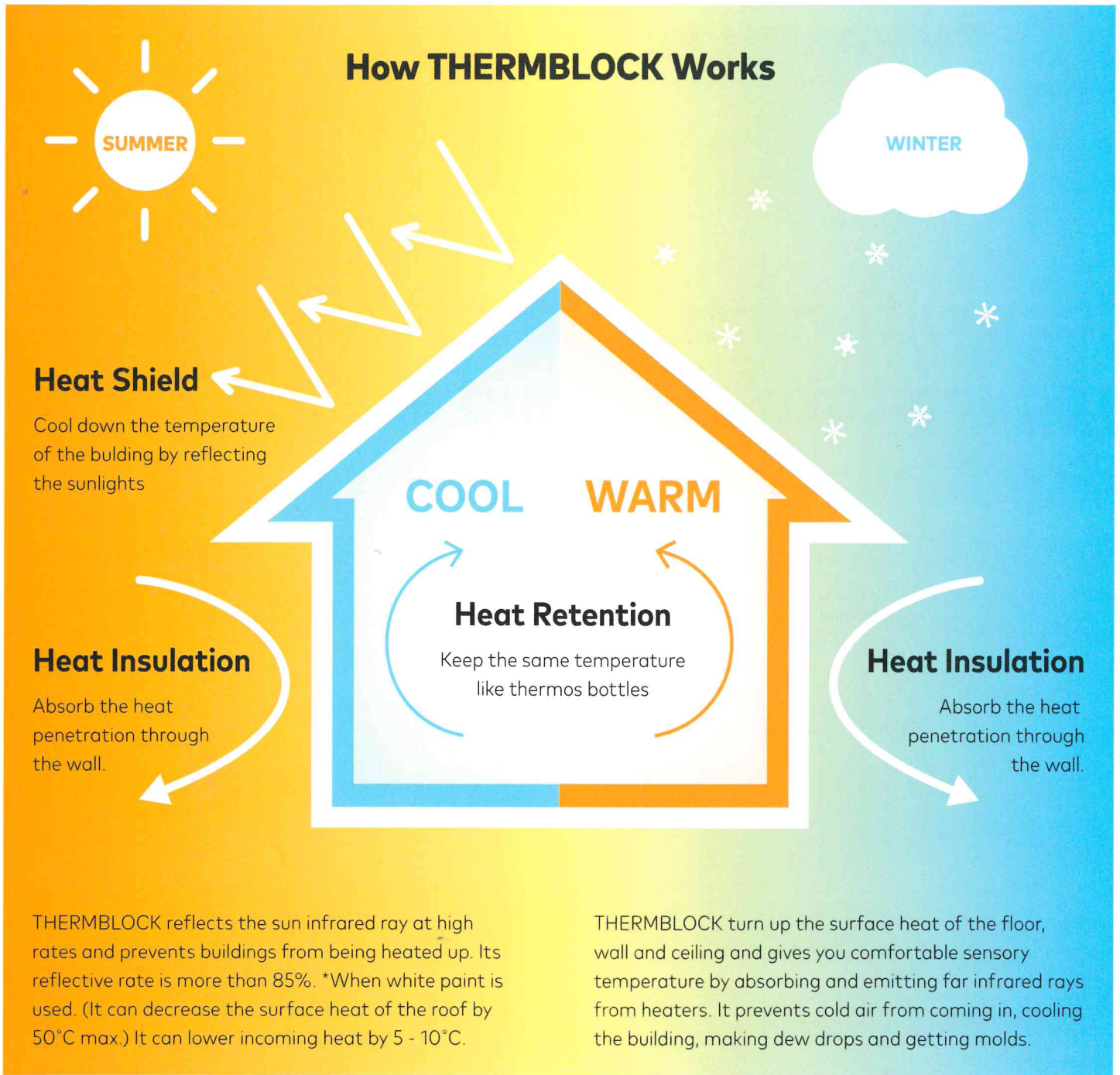


Sound Insulation



Safe

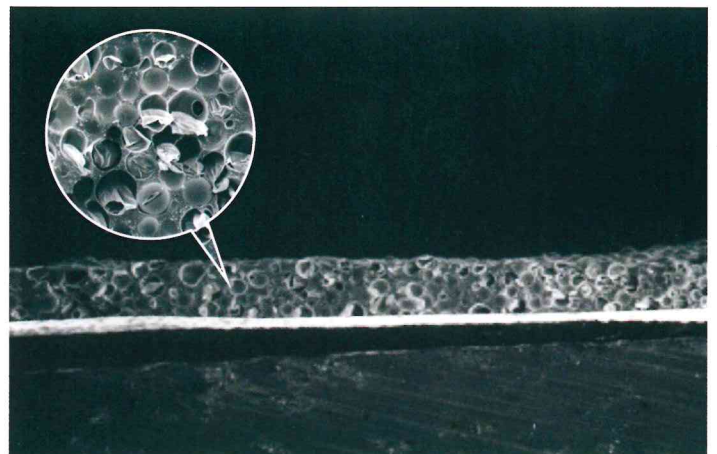
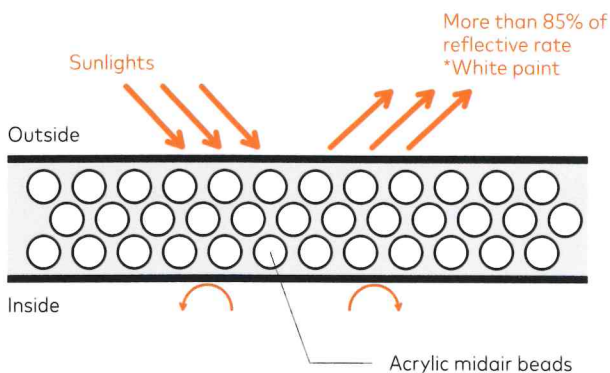
How THERMBLOCK Works



World's best coated film space ratio

Main materials

- Special acrylic resin (adhesive + duable + water resistant)
- Special large acrylic midair beads (heat insulation + heat retention)
- Oxidized titanium (heat shield + durable + stain resistant)

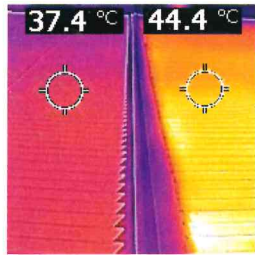




Its multi-function performs to reduce total cost and energy usage.



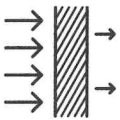
Heat Shield



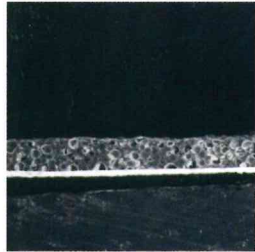
More than 85% of reflective rate

*When white paint is used.

THERMBLOCK achieves more than 85% its heat reflective rate by the function of oxidized titanium. It reflects the sun heat and prevents heat from going inside the building.



Heat Insulation



World's best coated film space ratio by the large midair beads

THERMBLOCK achieves high thermal insulation by the function of the special large midair beads.

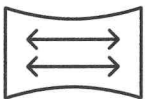


Heat Retention

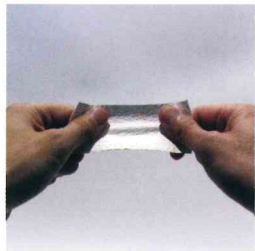


Best content of the large midair beads

By the large midair beads and radiation heat (directly transferred heat) of acrylic resin, the building can stay cool in summer and warm in winter.



Stretchable



Almost like waterproof agent

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



Durable



More than 15 year long durability

*Test results by Japan Paint Inspection and testing Association

THERMBLOCK went through 3000 hours of the examination to measure the durability by artificially replicating the weather conditions and promoting deterioration of the coated surface. It protects the building over a long time and prevents from degradation.



Highly Adhesive



More than 3 times as JIS

THERMBLOCK's high adhesibility has been proven by the test by Japan Industrial Standard. No primer will be necessary if the foundation is metal.



Water Resistant



No water permeability but moisture permeability

THERMBLOCK can be used for a leakproof purpose but helps create a comfortable internal environment because it lets moisture go through. No coating puffs occur as well.



Anti-sweating



Effective to store radiation heat

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



Sound Insulation



Approximately 10dB of sound insulation

As the special large midair acrylic beads, THERMBLOCK blocks sound leaking from the wall or roof or noises and rain sounds coming in to the inside.



Safe



Environment-friendly

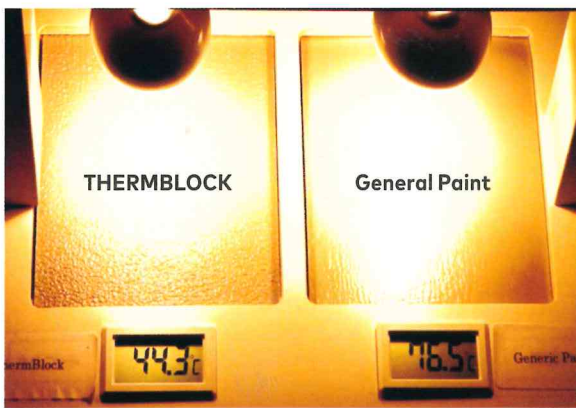
*F☆☆☆☆ aquired

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

Results of Experimentations

Comparison to General Paint

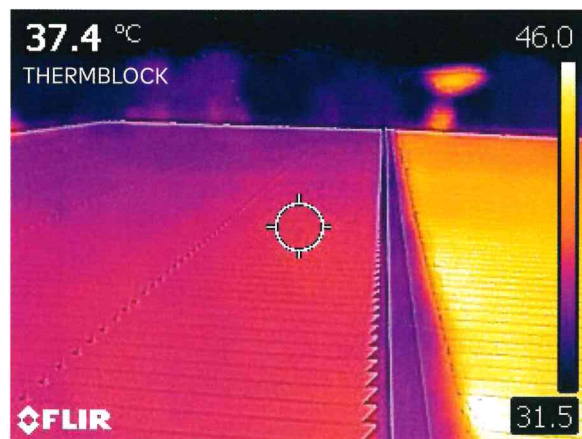
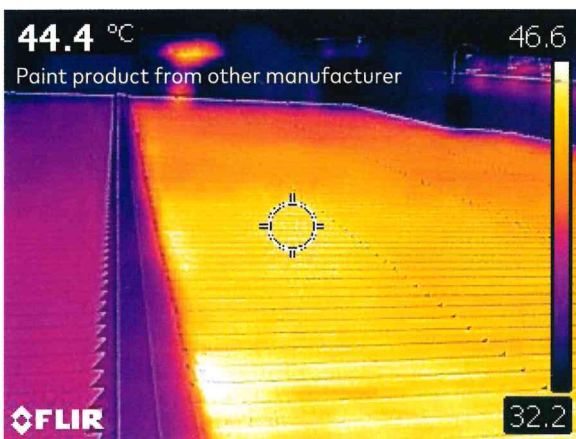
Temperature test by thermal lamp



Temperature test by cold spray



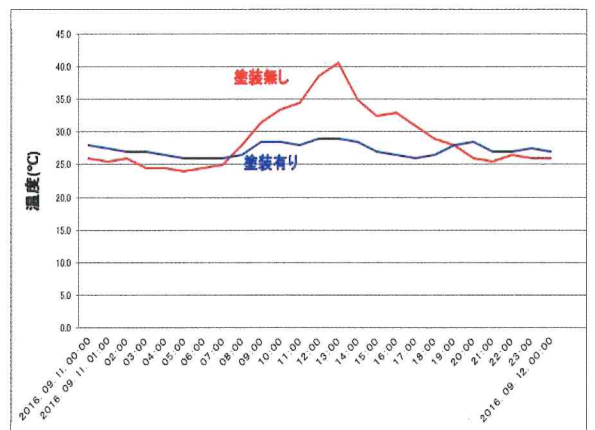
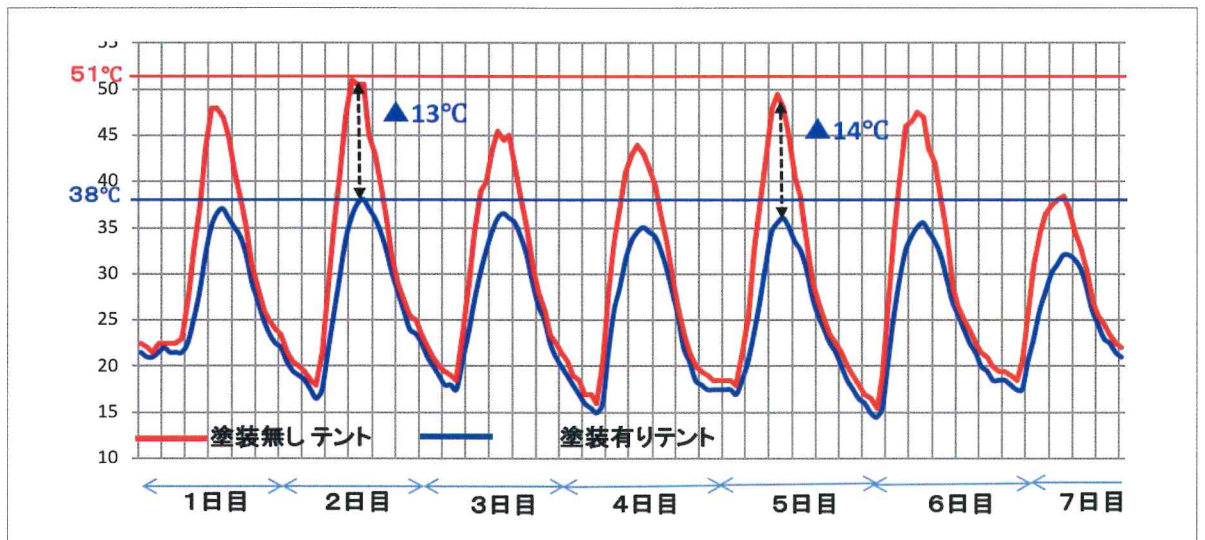
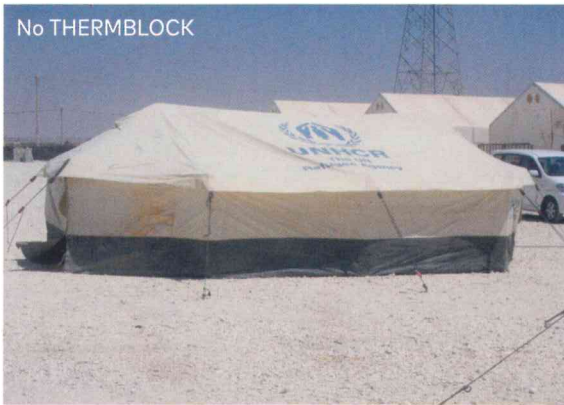
Comparison to the reflective paint from other manufacturer



Comparison to the existing painted area



Refugee camp tents by United Nations in Jordan





THERMBLOCK
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Past Work



Oishi Dental Clinic (Gyoda, Saitama)



Hozana Nursery School (Gyoda, Saitama)



Sun Drug (Sagamihara, Kanagawa)



Garage of Hato Bus (Ota, Tokyo)



Fuji Technos (Yokohama, Kanagawa)



Carmelia Beach Resort Hotel (Vũng Tàu, Vietnam)

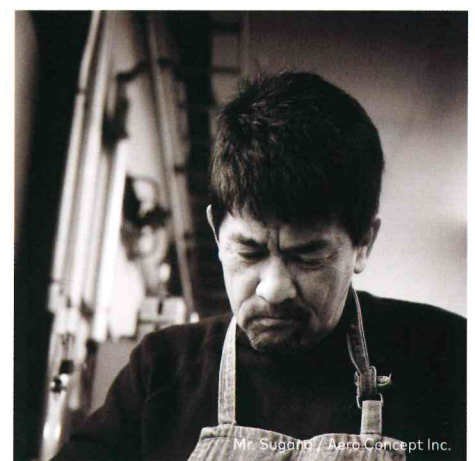


House of Minister of Education (Republic of Djibouti)



House (Seattle, USA)

Testimonial from Aero Concept Inc.



Keiichi Sugano

Born in Tokyo, 1951.

After graduating Waseda Jitugyo High School, he went to evening school while working in the daytime, then started working at Sugano Seisakujo, a fine sheet-metal processing factory his grandfather started. Although he took over from his father as the 3rd president, he had to close down the factory as a consequence of bubble collapse. With supports from his past clients, he restarted his company with his faith "Create what I want by the time I die," and started the brand, "Aero Concept."

Aero Concept

Aero Concept is a brand with philosophy "Create what I want by the time I die" founded by Keiichi Sugano, who has experienced closing down "Sugano Seisakujo," originally founded as a fine sheet-metal processing factory and restarting the business. Making a clear departure from rationality and convenience which can be seen all over the world, he has been creating what only people who can resonate his passion and the quality of the product. Bags and cases he creates with his unique perspective not only have functions as bags or cases, but also make life of people who own the product rich and happy. This is what we have forgotten as we live with too many stuff around us. After restarting, his factory has produced many parts for aircrafts and has explored the way of light weight solutions for aircrafts. Reducing the weight while keeping the strength by making holes on duralumin plates is one of the methods they invented. And this technology are applied to Aero Concept's design identity, therefore their products are very light. And Keiichi, as a sheet-metal processing craftsman, are excellent at working with aluminum and superfine welding skills, which makes his creation perfect. Products of Aero Concept are highly acclaimed by Principality of Monaco, Hollywood stars and celebrities.

Q: How do you feel after applying THERMBLOCK?

A: It keeps the office very cool on a hot day.

I used to have to keep 3 ACs turned on for 2 hours before we started working to let the office cool down in summer. However, after we had THERMBLOCK on the roof, the office gets cool right after we turn on the AC. We even didn't have to use AC sometimes in the early summer.

Q: Any other findings?

A: It was surprising for me that it blocks the rain sound on a raining day. Especially people who have to deal with ultraprecise work such as superfine drawings are very happy to not get bothered by the sound. Actually I am a bit sad for me because I like the raining sound.

Q: About THERMBLOCK

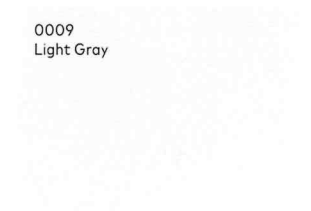
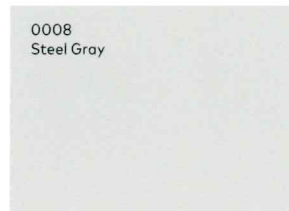
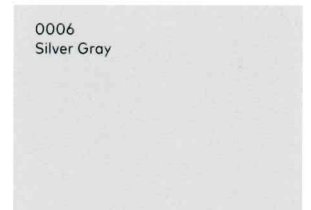
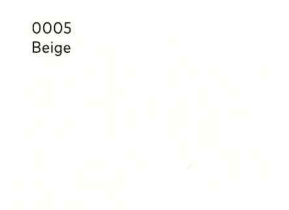
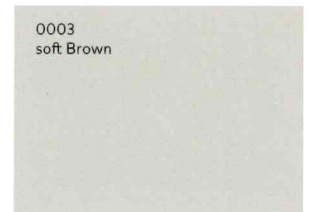
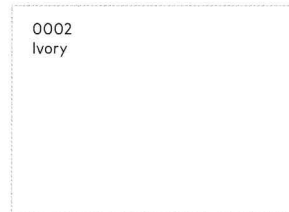
A: We have a lot of special guest and foreign visitors and they are actually very surprised with the coolness as they experienced the heat here in the past. I can recommend to my friends with confidence, and I will support THERMBLOCK to contribute to world's environmental reform.



Colors & Lineups

Standard Colors

- * 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.



Painting Process

Preparation of surfaces

Remove dirt, grease, rust, mildew, loose paint and other obstacles. Patch holes or cracks with proper compound if necessary. Keep enough draining sloop on roof.

THERM BASE (Sealer)

Apply THERM BASE when the foundation is water-absorbing such as RC, ALC, or block. If the foundation does not absorb water like steel, THERMBLOCK can be applied directly.

Instrument: Air spray, brush, or roller.
Method: Apply one coat in order to keep thickness of coating over 0.1mm.
Dry time: 0.5-1 hour in summer, 1-2 hours in spring and fall, 2-3 hours in winter

THERMBLOCK (Main Paint)

Agitate THERMBLOCK paint mechanically before use. Excessive shaking may cause underperformance of THERMBLOCK. For airless spray use, follow manufacturer's instruction: maximum tip size is 0.38-0.58 mm.

Instrument: Air spray, brush, or roller.
Method: Apply 2-3 coats in order to keep thickness of coating over 0.3mm.
Dry time: 0.5-1 hour in summer, 1-2 hours in spring and fall, 2-3 hours in winter

THERM TOP (Finish Coat)

Coat after THERMBLOCK having got dry. Avoid painting in the evening.
Instrument: Air spray, brush, or roller.
Method: Apply 2-3 coats in order to keep thickness of coating over 0.3mm.
Dry time: 0.5-1 hour in summer, 1-2 hours in spring and fall, 2-3 hours in winter

Warnings

- Avoid either circumstances where air temperature is below 5°C, temperature of the foundation paint is below 5°C or humidity is more than 85%.
- Avoid painting on a day when rain is expected.
- Keep the paint in a dark and cool place where the temperature is below 40°C or over 5°C.
- NEVER get the paint frozen. It may lead the paint in a worse condition.
- Finish the whole paint can once it is opened when possible. Seal the can completely to avoid the paint from contacting the air if not finishing the can. Use the rest as soon as possible. Stir before use when using the rest.
- Basic painting process, temperature conditions and painting tools are the same as general waterbased paints.

Lineups



THERM BASE

A sealer to maximize the performance of THERMBLOCK series. The main material is acrylic resin emersion, and can be applied on a broad range of the foundation.

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

THERM BASE M

- Use brush, roller or air spray without diluting.
- Can be used with THERM INTERIOR.

THERM BASE S

- Use THERM BASE S when the foundation is dark colored.
- Use brush, roller or air spray without diluting.

THERM BASE U

- Can be diluted to 2X depending on the condition of the foundation and painting dimension and impregnation amount are adjustable.
- Use brush, roller or air spray.



THERM TOP

Semi gloss clear coat with acrylic resin emersion. It prevents stains from rain on the wall or roof, and protect coated surface. The main material is same as THERMBLOCK, which makes the paint durable, stretchable and hard to crack.

* Semi gloss when one coat. Apply more than 2 coats for glossy finish.

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

THERM TOP H

- Better surface protection with antifouling, antibacterial.

Applicable area: Roof, rooftop (including waterproof purpose), parking, floor in a factory, etc

THERM TOP S

- Better surface protection with antifouling
- Applicable area:** Roof, rooftop, exterior and interior walls



THERMBLOCK

A multi-functional paint with heat shield, insulation and retention with special acrylic resin blended with special acrylic midair beads and oxidized titanium at golden ratio.

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



THERM INTERIOR

Water-based acrylic resin emersion paint. By painting this product with 60% of containing ratio of 110μ midair beads, it enhances heat shield, insulation and retention and prevents dew drops. F☆☆☆☆containing ratio aquired.

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



THERM ROOF

Water-based acrylic resin emersion paint. By reducing the containing ratio of midair beads to 30%, it enables darker and richer color, which creates more contrast between the roof and exterior wall. Its heat insulation reduced energy usage as well.

Use: Roof
Content: 12kg
Dimension: < 30m²
Other: Water-based



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THERMBLOCK JAPAN Inc.

<http://www.thermblock.co.jp>