

A healthy environmental finishing material

### **Eco-friendly Healthy Paint**

# KWOI YOO KONG KAN

The refreshing space is a blend of natural mineral minerals, natural absorbents, and natural retardants of nanoparticles to suppress inflammation, atopic dermatitis and aging, and is a paint with a variety of patent-certified effects to prevent eye diseases and improve immunity.



- Sick Building Syndrome Blocking radon
- Harmful wave, Water vein blocking
   Bioactive energy





Domestic and foreign Eco-friendly

## **Top-grade Paint**

Create a happy space where you can feel the health and comfort of your family with the highest-quality eco-friendly materials certified paint.











# Certification of the highest domestic and international ratings

# Environment Ministry Certification What is Mark of Environment Ministry?

This mark gives the Volatile Organic Compounds(VOCs) emission strength of the highest-grade building materials at home and abroad to products passed the final screening after conducting rigorous and thorough quality testing in accordance with the Korea Institute of Environmental Technology, an agency affiliated with the Ministry of Environment.

Inspectors visit the factory to check the manufacturing environment and production criteria, and even after certification, randomly purchase products sold online and offline to collect and inspect samples, and strictly examine harmfulness and Volatile Organic Compounds (VOCs) content.

## ISO 9001

**Certified Product** 



ISO 9001:2015

Quality Management System Certification



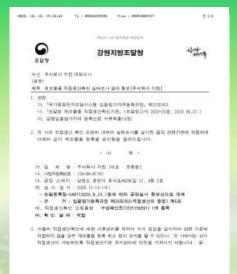


# Direct production procurement

**Certified Product** 



Proof of direct production confirmation of manufactured goods by the Public Procurement Service





# International trademark { registration certificate

Achieve

## KWOI YOO KONG KAN

Natural Ge-Lite Functionality Paint







# Standard for Best Environmentally Friendly Marks

Volatile Organic Compounds **VOCs** 

VOCs, which are harmful pollutants to the human body, are air pollutants that occur frequently in everyday environments, including residential and office spaces.

Kwoiyoo-Kongkan is an eco-friendly paint that has passed the test standards that are significantly better than other products as a result of the VOCs test.

Kwoiyoo-Kongkan with the best grade eco-friendly mark paint in Korea, which is less than 2g/L



#### **Eco-friendly Paint VOCs Comparison**

Volatile Organic Compounds (VOCs)				
General Planetary Paint	200 g/L			
Germany's finest eco-friendly Paint	20 g/L			
U.S. FDA Certification Highest Gold Rating	3 g/L			
Best grade eco-friendly mark Paint	2 g/L			
Kwoiyoo-Kongkan Paint	0.09 g/L			

The content of volatile organic compounds(VOCs), which are the standard of Korea's highest-grade environmental mark and the U.S.'s highest-grade environmental mark, is much lower than 200 times.

## KWOI YOO KONG KAN

is proudly reveals!

VOCs Harmful to the Human Body

This paint is the highest-grade eco-friendly paint that receives the lowest test results in Korea.



#### KEITI

Test method: Standard for indoor air quality process test

Sample name: Kwoiyoo-Kongkan

Test item	Unit	Test result
Volatile Organic Compounds (VOCs)	g/L	0.09
Formaldehyde	Mg/(m² -h)	Not detected



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## KWOI YOO KONG KAN

## Condensation prevention

Effect for securing ventilation

### Moisture function

Free absorption/discharge of moisture

### **Eco-friendly**

Environment Mark Authentication

### Are you still using paint with harmful antibacterial agents?

Kwoiyoo-Kongkan is an eco-friendly wallflower that has tested not only mold and condensation but also atopy improvement, Sick Building Syndrome, radon, VOCs, and harmfulness tests.



#### 6 types of mold-related reports



Mold spore resistance experiment



Antimicrobial testing



Mold culture experiment



a desiccation experiment



a report on a deodorant test



adsorption rate experiment

# The days when paint is applied and colored are over.

Excellent moisture absorption and 99% antimicrobial deodorant effect

Germanium, air purification, creating a far-infrared health environment

In summer, it is humid during the rainy season, and in winter, condensation caused by heating makes it a good environment for fungi to live in.

Source blocking through KWOIYOO-KONGKAN



Kwoiyoo-Kongkan is an eco friendly paint to prevent this unpleasant mold.













Ultra-fine porous structure

# Ge-Lite's excellent deodorizing power

Natural antibacterial inorganic materials allow anyone to paint and live on the same day without worrying about smell.



Deodorization test report certificate

Absorption and removal of Radon and Sick house syndrome

Ge-Lite + Antibacterial Inorganic Ingredients



There is no meaning of atopic certification without R&D clinical trials.

## Contains natural functional mineral gelite from R&D clinical trials

Materials that hold R&D data and patents such as anti-inflammatory, anti-atopy, and increased immunity through the Ge-Lite + Paint clinical trial at the government-designated biotechnology university lab



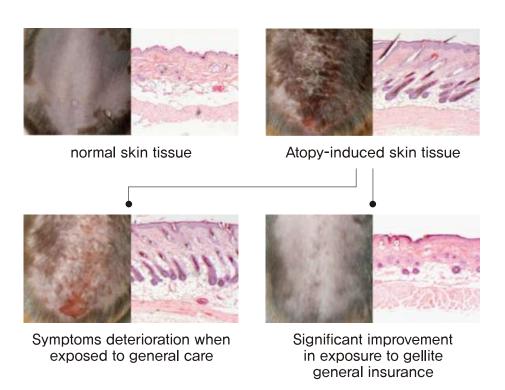
Ge-Lite
Anti-inflammatory Patent



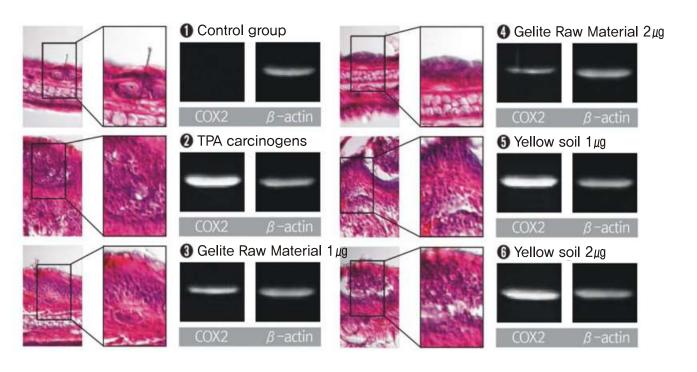
Ge-Lite Anti-Atopy Patent

### Skin Atopy, Inflammation Suppression Clinical Trial

#### Patent application 10-2012-0125966



#### Patent application 10-2012-0098718





Safety certification for testing and testing of chemical components that cause radon

# Reliable Kwoiyoo-Kongkan paint tested for Sick Building Syndrome

In order to ensure that you can use radon, which has recently been a problem, you can safely use it below the government-set safety standards as a result of the completion of a test for Sick Building Syndrome and measurement by a national authorized institution.



## Sick Building Syndrome Test and Anti-inflammatory



Sick Building Syndrome Test report



Deodorization test report



Ge-Lite
Anti-inflammatory Patent



# Frequently Asked Questions

**KWOI YOO KONG KAN** 

Q&A

- Q. What's the difference between blue paint and the best grade or the U.S. FDA approved eco-friendly mark product?
- A. All eco-friendly marked products have been approved because the amount of volatile organic compounds(VOCs) that are the standard for eco-friendly labeling has been detected below the standard. Kwoiyoo-Kongkan paint is usually 10 to 400 times lower in VOCs than the best rated xx eco-friendly paint. A high rating does not mean that the paint is less harmful.

- Q. Is Kwoiyoo-Kongkan paint only yellow and white?
- A. Kwoiyoo-Kongkan boasts the lowest level of volatile organic compounds in Korea, and only yellow and white colors are produced to maintain the safest quality because the concentration of harmful ingredients increases when colors are added.
- Q. There are various materials such as loess, diatomaceous earth, and earthstone, and what is the difference between the recovery space and the restoration space?
- A. First of all, whether it's loess or diatomaceous earth, it's a compre -hensive name, but the material used as a real raw material doesn't have exactly any scientific basis. In the case of this paint, Gelite, a key raw material, shows a big difference in the possession of R&D clinical trial data and patents, which are scientific grounds for various functions.

### The function of the gelite

Gelite is the most selected high-quality natural volcanic ash mineral among 80 mines in Korea. It is made of more than 7,000 times the amount of charcoal and contains a large amount of rare minerals, so it is a natural functional material used in various fields such as water purifier filter, cosmetics, feed, soap, ceramics.

In addition, the state-designated bioengineering university lab has a variety of R&D results data, including anti-aging, anti-inflammatory, increased immunity, and metabolic rate promotion.

It is characterized by holding various patents through these scientific evidence.

Ghan Kwoiyoo-Kongkan Exclusive Supply



## KWOI YOO KONG KAN

### More Information

Unit: 4L, 18L Color: White, Ocher

I Construction area: per Liter 2~2.2 m²

| Construction Method: Brush, Roller, Spray (Wall Direct Construction)

Use: Anti-gump, Condensation prevention, Interior interior, Interior walls (Wallpaper, Veranda elastic coat), Water-based paint for construction

Application: • Hospitals, Schools, Kindergartens, Jjimjilbangs, Basements, Houses, Office spaces, Wilderness houses, etc.

- Residential space for patients, Children and the elderly
- A place with a strong smell or mold
- Where there is a risk of fire
- Sick Building Syndrome Radon-blocking eco-friendly buildings



## Available in various locations

You can paint it anywhere in the building, such as the veranda, balcony, and basement of apartments, houses, villas, etc., or moldy places such as eyebangs and living rooms.







Veranda

balcony

### **Construction Cases**















### **Construction Cases**









**Bundang Regional Daycare Center** 







Chuncheon Regional Kindergarten





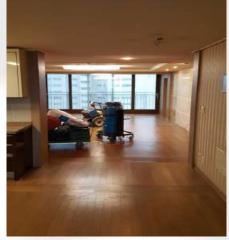
Seoul Hospital Waiting Room

**Bundang Dental Hospital** 

### **Construction Cases**





















### KWOI YOO KONG KAN

#### **Special Advantages**

- An odorless, flammable product
  The fire is strong and odorless.
- Radon blocking, Far-infrared, Germanium components

  Environmental Improvement Functions of Residential Space.
- Effects of treating inflammatory atopic dermatitis

  Residential space turns into a therapy space for family health.
- Antibacterial, Deodorizing, Anti-Gomphoid, Condensation Prevention

  It catches the smell with a porous structure.
- Natural Material Experimental Certification
  It protects the human body from adsorption of harmful substances such as sick building syndrome, radon, and fine dust. Contains natural germanium for the promotion of metabolism and the effect of meridian circulation driving.

- Experimental report from Ajou University Department of Mechanical Engineering
  Bioactive energy is released and the water vein is blocked.
- National accredited agency certification
  Paint MSDS, heavy metal inspection, hazardous material inspection, VOC, etc.

**MSDS** 





### Korea's first R&D experiment paint

We change the residential space into a healing space.

All the effects have been scientifically verified.



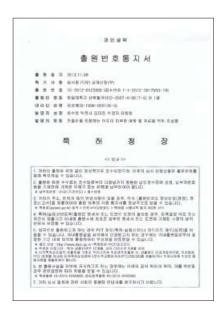
Certificate of trademark registration



Patent for anti-inflammatory



Composition patent application for paint addition



Ge-Lite Anti-Atopy Patent

## Advantages 1

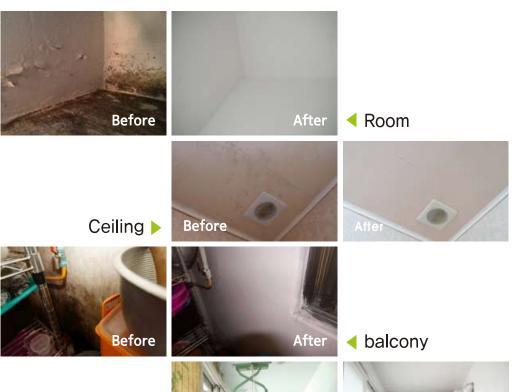
# Wallpaper & Inner Wall Mold Prevention



### Condensation/Pump Prevention Germanium Paint

It inhibits mold through humidity control and anti-gump effect on porous germanium mineral raw materials, not chemical antibacterial agents.

Kwoiyoo-Kongkan is a high-quality paint containing gelite and natural flavouring minerals, which effectively prevents moisture—prone wallpaper and walls such as veranda, boiler room, and basement, and makes it easy for beginners to work.



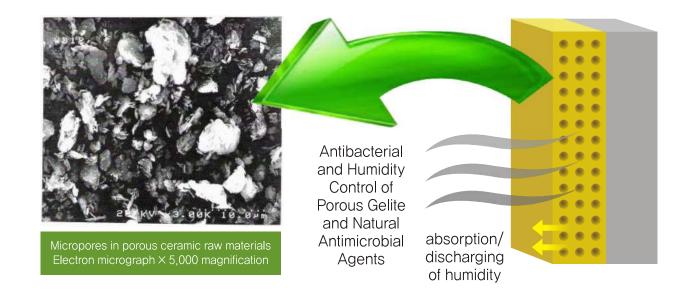




balcony 🕨

### Principles of Outstanding Condensation Prevention and Moisture Control

The surface condensation is prevented and moisture controlled by microfabrication of porous ceramic materials.



#### **Performance Testing**

Comparison of Kwoiyoo-Kongkan with Company B (General Paint)

Can you see? After one day, 10 minutes at room temperature to experiment with temperature changes at subzero temperatures, and then there was a change in normal water paint and Kwoiyoo-Kongkan.

Kwoiyoo-Kongkan condensation suppression





# Isn't there any harmful ingredients or heavy metals in the natural ingredients?



heavy metal detection report



Test report of germanium



Test report of pernicious ingredients



Hazardous electromagnetic blocking

## Advantages 2

# Eco-friendly and amazing functionality

Paint got MSDS certification with natural minerals and minerals that are harmless to humans, paint has pass heavy metals test

Prove various functions such as anti-inflammatory & atopy patent certification, germanium/mineral/far infrared examination, air purification deodorization, electromagnetic wave blocking, blood circulation, etc.

Kwoiyoo-Kongkan have got MSDS certification and functionality certification!



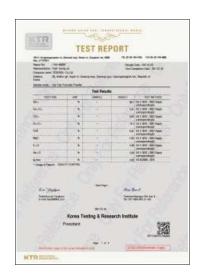
MSDS K



Patent for anti-inflammatory



Test report K

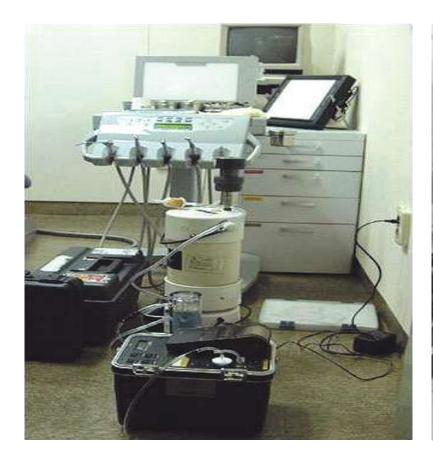


Chemical composition analysis table

### After construction Indoor air test

#### Residential environment air measurement

Measurement of indoor pollutants concentration measured by indoor air quality process test method



Measurement of indoor pollutants (PM10, Radon)



Measurement of indoor pollutant (CO,NO2,Ozone,Asbestos)



Measurement of indoor pollutant (VOCs, HCHO)

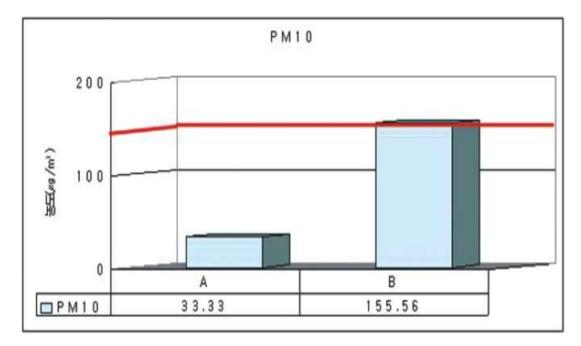


DNPH Cartridge for ozone measurement (Supelco, U.S.A)

# Ultrafine dust (PM10) Suppression Experiment

Division	А	В	Indoor environmental standards
PM10	33.33	155.56	150

A: Interior using eco-friendly paint B: Interior using general paint

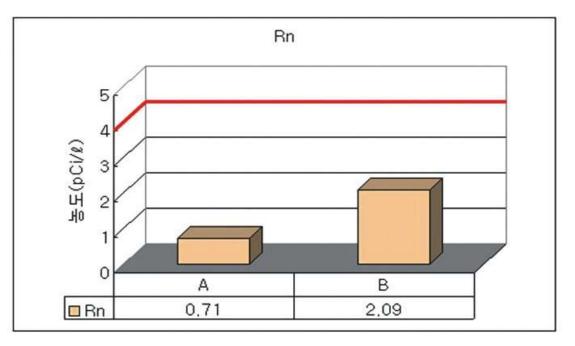


⟨ Indoor Concentration of PM10 ⟩

Radon
Concentration Experiment

Division	A(M±SD)	B(M±SD)	Indoor environmental standards
Radon(pCi/l)	0.71±0.34	2.09±0.81	4 pCi/ℓ

A: Interior using eco-friendly paint B: Interior using general paint

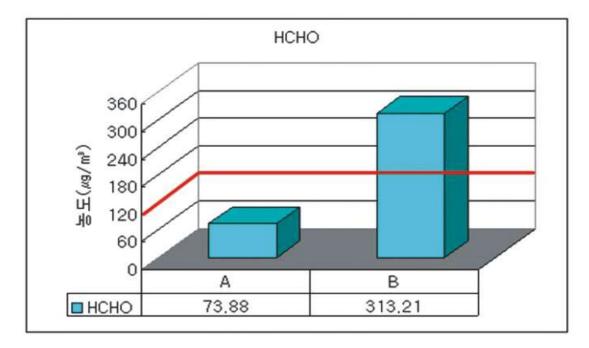


⟨ Indoor Concentration of Rn ⟩

# Formaldehyde (HCHO) Concentration Experiment

Division	A(M±SD)	B(M±SD)	Indoor environmental standards
HCHO(µg/m³)	$73.88 \pm 12.50$	313.21±41.93	120μg/m³

A: Interior using eco-friendly paint B: Interior using general paint

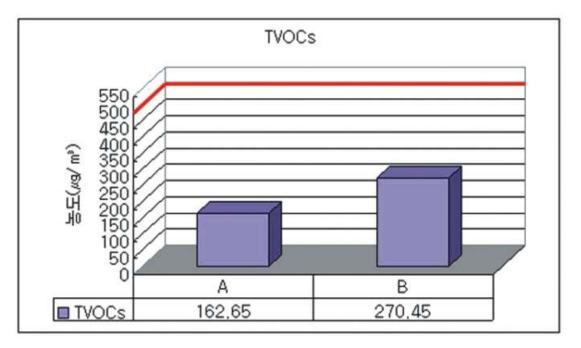


⟨ Indoor Concentration of HCHO ⟩

# Volatile Organic Compounds (VOCs) Concentration Experiment

Division	A(M±SD)	B(M±SD)	Indoor environmental standards
VOCs(μg/m³)	162,65±65,15	270.45±91.01	500μg/m³

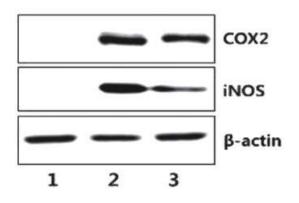
A: Interior using eco-friendly paint B: Interior using general paint



⟨ Indoor Concentration of VOCs ⟩

### After construction cellular change clinical trial

### Solve the symptoms of "Sick house" syndrome & Atopic Dermatitis with Premium Ge-Lite!



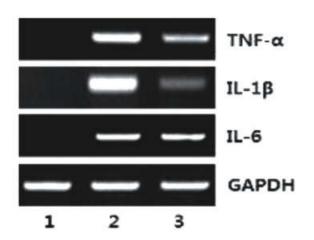
### Psoriasis / Atopy / Toxicity

Kwoiyoo-Kongkan inhibits the creation of COX-2 and iNOs

1: Contrast group 2: Paint 3: Mixture of Paint

The amount of COX-2 and iNOS generation was examined via the Western Blotting test on Raw 264,7 cells applied with either ordinary paint (sample 2) or a paint mixture including our product (sample 3). The results in comparison with the control sample (1) show that, because of the paint's toxicity, an inflammation reaction occurred in the Raw 264,7 cell applied with ordinary paint (sample 2). In contrast, in the case of the Raw 264,7 cells applied withthe paint mixture sample including our product (3), a considerably lower occurrence of COX-2 and iNOS was observed.

This shows that, by adding our paint additive invention, the factors that cause inflammation can be stopped,



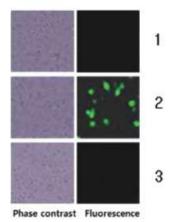
### Strengthen immunity

#### Kwoiyoo-Kongkan cytokine inhibitory effect experiment

1: Contrast group 2: Paint 3: Mixture of Paint

Full Raw264.7 cell coatings, it was confirmed reactive oxygen species in the cells and an increase in active oxygen paper in RT-PCR method of color by applying a mixture of paint. Compared with the contrast group, the group of paint was confirmed to increase the paper of active oxygen from RAW264.7 cells by toxic paint. However, in the case of a mixture of paint, be reduced active oxygen paper significantly compared to the paint was confirmed.

By adding the additive coating composition, the present invention has been found that the expression of cytokines is inhibited in the paint,



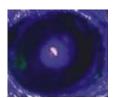
### Antioxidation / Anti-aging

#### Active oxygen species inhibitory effect experiment

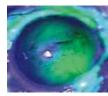
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Full Raw264.7 cell coatings, it was confirmed reactive oxygen species in the cells and an increase in active oxygen paper in DCF—DA method of color by applying a mixture of paint. Compared with the contrast group, the group of paint was confirmed to increase the paper of active oxygen from RAW264.7 cells by toxic paint. However, in the case of a mixture of paint, be reduced active oxygen paper significantly compared to the paint was confirmed.

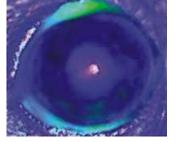
By the addition of paint additive composition of the present invention to paint, it was found that the expression of reactive oxygen species is reduced significantly.



Contrast group



Paint



Mixture of Paint

### Suppression of eye inflammation

The effects of "Sick House" Syndrome on the eyes.

A biotechnology department of HanRim University

The test was conducted using an ophthalmological Slit-Lamp which helps show the condition of the eye in case there are issues such as Dryness of the eyes. With the control sample, the eyes display a tint of the color blue. When there is optical inflammation or dryness, the eye is shown to display a green color.

With the animal subject (ICR Mice) applied with the paint sample (dried and mixed with water), the eyes were observed to display a green color. In comparison, the animal subject (ICR Mice) applied with the paint mixture including our product (dried and mixed with water) displayed less amount of green.

### Inflammation & atopy inhibitory effect

Ge-Lite + Paint with minerals(kwoiyoo-Kongkan) the only product in Korea that has been proven to be effective in treating inflammation and atopy through clinical trials.

# Effect of atopy healing after using Kwoiyoo-Kongkan

Clinical trial with the only paint raw material in Korea

Spray natural pozzolan on rats that cause atopic dermatitis, the effect of treating and preventing atopic dermatitis is confirmed.









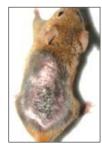
















### Comparison with other products

High-quality functional paint with superior quality compared to the finest German paint.

Division	German paint	American paint	Kwoiyoo Kongkan
Price (4L)	150,000 won	85,000 won	45,000 won
Anti-mold	×	0	0
Electromagnetic shielding	×	×	0
Germanium	×	×	0
Anti-atopy	×	×	0
MSDS	0	×	0
Incombustible materials	×	×	0
Remove odor	×	×	0

### Premium paint at this price?

#### Low price due to direct manufacturing & sales

We directly produce and eliminate unnecessary distribution processes and sell products at affordable and reasonable prices.



### Kwoiyoo-Kongkan never lie!

We do our best to reduce distribution costs and make better products.

### Patent& certification and Test Report

#### Patent & certification



Certificate of trademark registration



Patent for functional anti-aging



Patent for anti-inflammatory



Patent application for development of atopic products



Patent for Far-infrared radiation



Patent for pozzolan



Patent for electromagnetic shielding



Certificate of merit for eco-friendly

### **Test report**



Test report of sick house syndrome



Test report of pernicious ingredients



Test report of germanium



Far-infrared radiation 928



Hazardous electromagnetic blocking



Paint MSDS



Mold test for paint



Antibiotic test (colon bacillus, pseudomonas aeruginosa)

#### PREMIUM GE-LITE PAINT

## KWOI YOO KONG KAN



#### How to Open

#### \* notice before open

Shake enough before open! in the case of 18L mix it with stick after open the paint.

- 1 Pull the ring at the left around.
- 2 Push the middle of the cover with one hand and pull up the ring with other hand.

#### Way to construct

#### \* notice before use

Do not use it on the wall with coating or oily wall, (glass, acrylic, tile, Etc.) (but if put on the aqueous gesso first on and dried than oil coating wall such as silk wallpaper, drywall also can be used)

- 1 Cover the floor with paper, put on the masking tape at division line between floor and wall.
- 2 Put on the masking tape at window frame and wall socket.
- 3 Apply a suitable amount of paint to the roller or brush using a tray and apply it from top to bottom.

If the paint is a bit dry, mix the water as needed.

Be careful not to spill too much paint on the roller or brush.

- 4 Use a roller to paint a large area first, and finish with a brush at edges or narrow areas.
- Repeat the process above twice, second construction shall be reconstructed after one hour of first construction.

#### Storage method

- Store at room temperature in a cool place, avoiding direct sunlight.
   (In winter, you must store it at room temperature to prevent freezing.)
- After opening, re-use the remaining paint within 4 months of sealing the lid.
- The expiration date of this product is 8 month.

## **Exposition / Media**







Hallym University – G.han co. (Naver)



Kwoiyoo-Kongkan the Odorless, resistance to flame paint (hankyung)



Eco-friendly certification by ministry of environment (joongdo)



Winter Condensation Prevention Paint (etnews)aver)

## **Export**

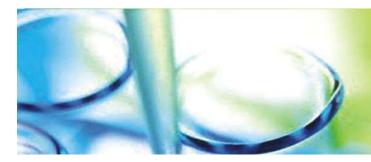












# Operating corporate laboratories with 100% independent technology and outstanding researchers.















## Possess production facilities







## Panorama view of exhibition hall













PREMIUM GE-LITE PAINT

# KWOI YOO KONG KAN

# Comfortable space! Happy space!

Let's decorate the space with Kwoiyoo-Kongkan which is recognized as the best eco-friendly paint in South Korea.



