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Specializing in eco-friendly
building materials
HONGSUNG E&G Co., LTD.



Spray Coat / Plastering / Finishing Material

BAROMIX



Solving multiple issues of inflammability,
heat insulation, and *finishing with one
installation*

 **HONG SUNG E&G Co., Ltd.**
engineering & green

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Solving multiple issues of inflammability, heat insulation, and *finishing with one installation*



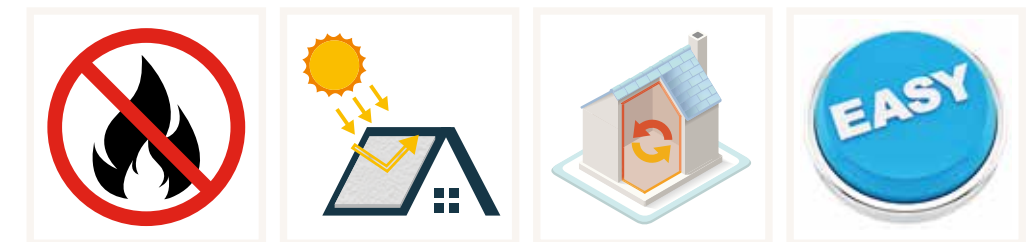
BAROMIX

Globally, the "vertical flame spread", which spreads the flame along both the interior and exterior walls of the building, is increasing the risk of damage on property and human life.

In particular, as temperatures go over 38°C and as high as 49°C in some parts of desert in the Southern part of California, it even forms extreme dry temperature zone, often leading to massive wild fires. These spontaneous fires frequently cause damages on our precious housing properties and human lives.

BAROMIX is an eco-friendly inflammable insulation made of expansive insulation and inorganic binder. It can be applied by spraying or plastering and improve inflammability which is considered as one of the biggest weaknesses of the conventional insulation.

Now you can resolve these multiple issues of incombustibility, insulation, and finishing with a single installation.



Characteristics of **BAROMIX**

One-time application can resolve inflammability, insulation, and finishing.	
Inflammability	It is not burnt with fire at all nor generating toxic gas.
Heat insulation	It shows excellent insulation performance with patented technologies of expansive insulator and inorganic binder.
Eco-friendliness	It is eco-friendly as it is made of inorganic admixture and harmless to human body.
Easy workability	It can be sprayed or plastered. In case of spraying, it can also be applied to irregular back surface.
Excellent durability	It is highly resistant to environmental changes and hardly damaged by external impact with high strength.



BAROMIX Test

Test for verification of inflammability of **BAROMIX**

NFPA 285

Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components

· Test images



· Test result

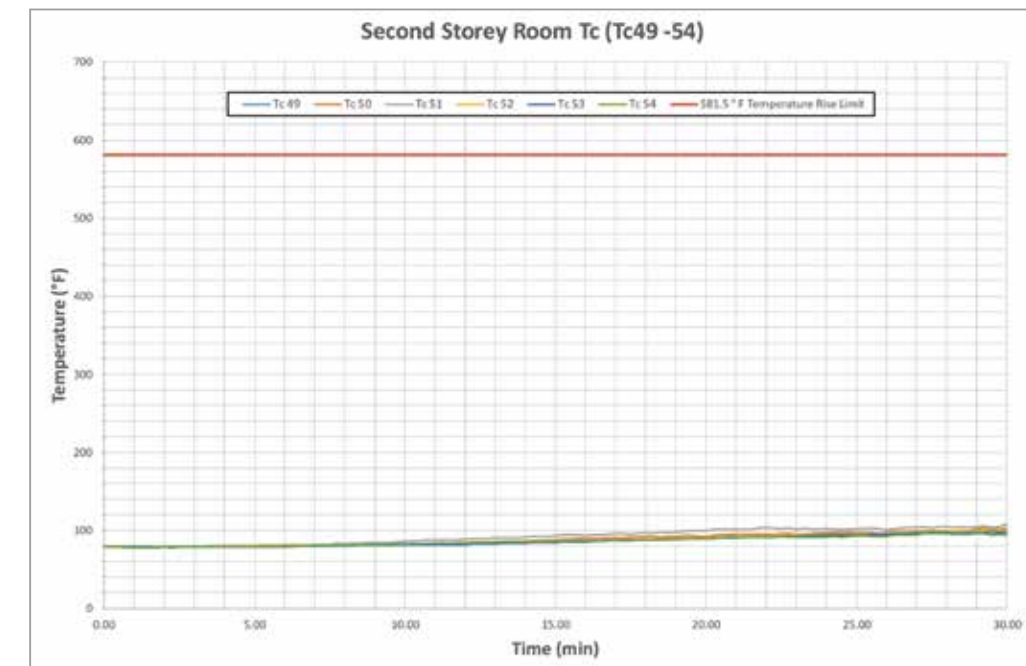
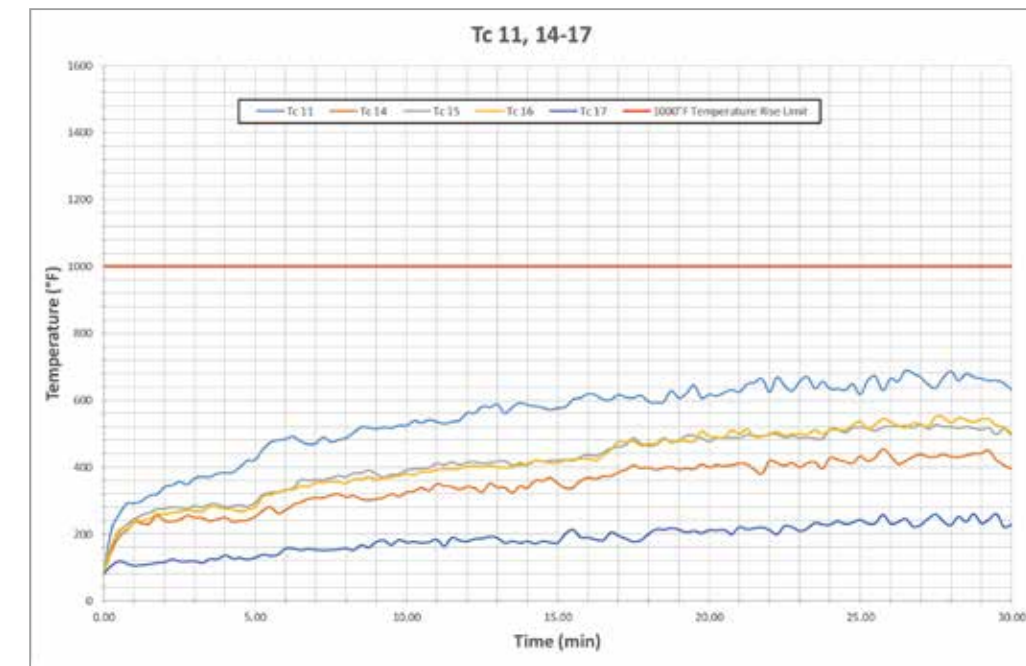


PRELIMINARY TEST RESULTS : SJ055



Test Performance Evaluation Summary Table		
Test Requirement	Test Observation	Pass/Fail
Flames emitting from the surface of the exterior face of the test specimen shall not reach a height of 10 ft. or greater above the top of the window opening.	Flames did not reach 10 feet above the window opening.	Pass
Flames emitting from the surface of the exterior face of the test specimen shall not reach a horizontal distance of 5 ft. or greater from the vertical centerline of the window opening.	Flames did not reach a lateral distance of 5 feet from the vertical centerline.	Pass
Flames shall not occur in the second-story test room.	There was No visible flaming in the second story test room.	Pass
Temperatures shall not exceed 1000°F as measured by thermocouples Tc-11 and Tc-14 through Tc-17.	Tc-11 and Tc-14 through Tc-17 did not exceed the 1000°F limit.	Pass
Temperatures measured 1 in. (25mm) from the interior surface of the test specimen within the second story test room shall not exceed 500°F above ambient air temperature of test facility at the start of fire test as measured by Tc-49 through Tc-54.	Tc-49 through Tc-54 did not exceed 500°F limit above the ambient temperature.	Pass

PRELIMINARY TEST RESULTS : SJ055



How to apply BAROMIX

- ① Base treatment : Do crack repairing on base surface, joint mesh work and putty, and remove debris.
- ② Application of BAROMIX primer

BAROMIX Primer (undercoating) specification (reference)

Product name	BAROMIX Primer	Usage	Water-proof and base-primer for mortar, concrete, wood material, and gypsum board
Quantity	5gal / CAN	Color	BLACK
Application area	5gal/100m ² (for 0.18mm of thickness)		
Dry time	12 hours or longer at 25 °C		
Application method	Brush, roller or spray		
Storage	For 6 months (at 5-30 °C with 80% or lower humidity)		

1. Avoid work when the temperature of work place and object to be applied is below 0 °C. (Because it is water-based, it may cause poor adhesion due to freezing)
 2. Recommend to work when the relative humidity is 80% or lower.
 3. Remove all foreign substances such as dust, greese, moist, rust from the applicable surface during application.
 4. Do not mix with other paint.
 5. Consume the product right after opening the container, as it is likely to be contaminated from external contamination.
- ③ Protection : Prior to spraying or plastering, attach covering tape to all areas except for the application areas (including bottom surface) to be protected.
 - ④ Mixing : Mix BAROMIX and water by a mixer according to the application method
 - ⑤ Spraying (plastering) : Spray (or plaster) 5mm of thickness $\pm\alpha$ evenly for 1st layer. After curing for 12 hours from the 1st spray, spray (or plaster) the second layer in 5mm of thickness $\pm\alpha$ smoothly.
 - ⑥ Curing : For about 2 days (for 10mm of thickness at 20°C)
 - ※ If they want to finish in different colors than default color, it can be finished with our EASY GOLD III spraying finishing or 2 layers of water-based painting for exterior finishing.



Cautious

1. It cannot be applied if the temperature is 5°C or lower, relative humidity is 85% or higher.
2. Product shall be stored in dry and shaded area at the temperature ranged from 5 to 30 °C of temperature.
3. It cannot be applied to not-cured back surface (including mortar surface.)
4. It cannot be applied to oil-based back surface that is finished with vinyl, rubber, or oil.

Comparison of conventional insulation and BAROMIX (inflammable/heat insulation/durability/eco-friendliness)

Div.	BAROMIX	Urethane foam	Styrofoam	Glass wool
Material	Calcium silicate	Organic foaming	Organic	Inorganic
Absorption coefficient	NRC0.65-0.70	Data not available	Data not available	NRC0.75-0.80
Fire retardant	Inflammable (No toxic gas)	Flammable (Toxic gas generated at combustion)	Flammable (Toxic gas generated at combustion)	Fire-retardant (Toxic gas generated at combustion)
weather resistance	Strength and adhesion change over time	No deformation	Insulation performance drops over time	be weathered by oxidation over time
Workability	Easy to handle and apply	Easy to apply	Easy to apply	Must wear protective gear during handling and transporting
Absorption property	As it controls the water absorption as much as possible, no changes in noise absorption and insulation performances	Close Cell structure	Close Cell structure	If it absorbs water, it lowers noise absorption and heat insulation as it takes longer to discharge.
Environment friendliness	harmless to human body	fatal toxic gas generated at combustion	toxic gas generated at combustion	harmful to human body if handling for long time

BAROMIX specification

Product name	BAROMIX	Usage	Finishing material for in/exteriors
Color	White power		
Application area	Possible to cover 3.7m ² when applying 10mm per 50lb		
Dry time	First dry : 12 hours (for 10 mm of thickness at 20 °C) final dry : 4 days (for 10 mm of thickness at 20 °C)		
Application method	Spraying or plastering		
Storage	For 6 months (at 5-30 °C with 80% or lower humidity)		

Application of BAROMIX

- Interior and exterior of wooden housing which is fragile to fire and heat insulation
- Interior and exterior heat insulation of all new and remodelled buildings
- Roof and wall finishing of buildings that require cutting radiation heat
- Interior finishing for rough base surface (Drivit, tile, brick, or embossing-touched surface, etc)

