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We have developed a high-functional thermal barrier paint “SUPRA” that we started selling last April. In July, we made some extensive improvements to the product. By these improvements, SUPRA became smoother and very easy to paint

Moreover, we became the first company in paint industry which introduced Carbon Offset through painting. Now, when our customers buy SUPRA, we can issue “Carbon Offset Certificate” confirming the contribution they have made in reducing CO2 emissions. They can display it to show their contribution to the environment. We are very happy that our activity promoted the change in the attitude of many companies towards the “Carbon Offset” through painting.



At the same time with the improvement, we added “PLANET” to this paint’s name to appeal that this paint can contribute to maintain the environment.

Also, we made much efforts to reduce the price by rationalizing the various processes, and succeeded to cut off 2,000 yen per can.

We also obtained the accreditation criterion for volatile organic compound of MLIT and obtained the grade “F☆☆☆☆” so this paint can also be applied on interior areas too.

We also developed and commercialized a new product “PLANET SUPRA FLEX” on our customers’ requests like: surface hardening, glossy finishing, contamination resistance. To make SUPRA series stronger, we also commercialized special sealer and primer. As all these products are water-based and no solvents, they are harmless and odorless. All our products are at optimal level for maintaining the earth’s environment.

Furthermore, we also developed a transparent thermal barrier paint for glass. This paint block the heat that infiltrate from windows. After drying, this paint becomes like a film. This is also a water-based paint.

From now on, we’ll aim to enrich our product lineup: thermal barrier paint for concrete, asphalt, urethane as well as waterproof-thermal barrier paint etc. We wish to preserve the Earth’s environment through our products.

Following are the details of our products.

## 1. PLANET SUPRA

We improved our conventional product. Now there is no need to use diluted water, by doing this we could reduce the product price. And thanks to our new technology, hollow beads are completely compounded in emulsion, so this paint doesn’t separate off and became extremely smooth to paint. We also succeeded to give it an excellent adhesion effect. It is very resistant to bend and it doesn’t crack even during the shirring processing.

With all these characteristics, PLANET SUPRA can be easily painted with various tools, no need to have special technique to paint, hence reduced the painting cost.

The actual price is 45,000 yen / 10kg can (white), 52,000 yen~/10kg can (color). We fixed a quite cheap price aiming to generalize our product. Actually, the price, 900 yen / m<sup>2</sup> (white) is cheaper than ordinary acrylic silicone paints.

■ Test data of PLANET SUPRA (test conducted by Muramoto Corporation)

We tested our improved product by painting on the prefab-house's roof in Nara prefecture in July-August 2008.

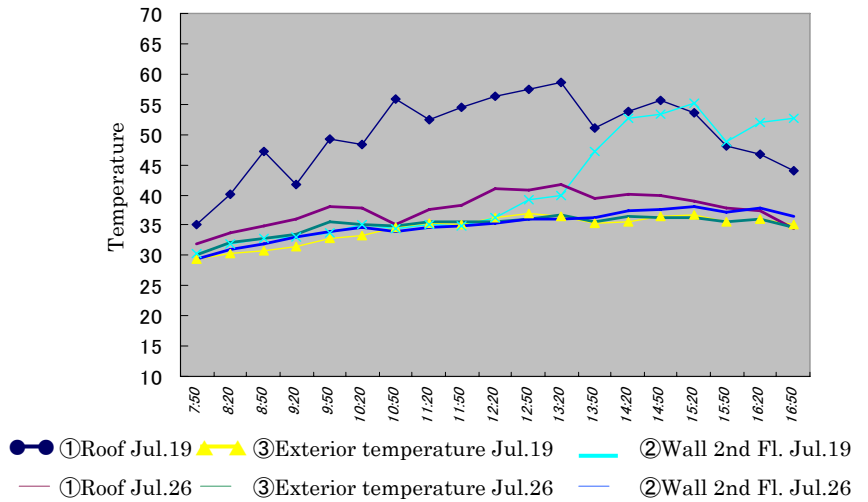
Before painting



After painting



Result Data (Chart 1)



The result on the roof top, (Chart 1) shows that the temperature has reduced by 10°C (average). During the peak hours, we can see difference of 20°C in the temperature.

We observed reduction of 2°C in inside temperature. By this result, the thermal barrier effect was confirmed.

We can also observe by the graph that the inside temperature reduced after painting.

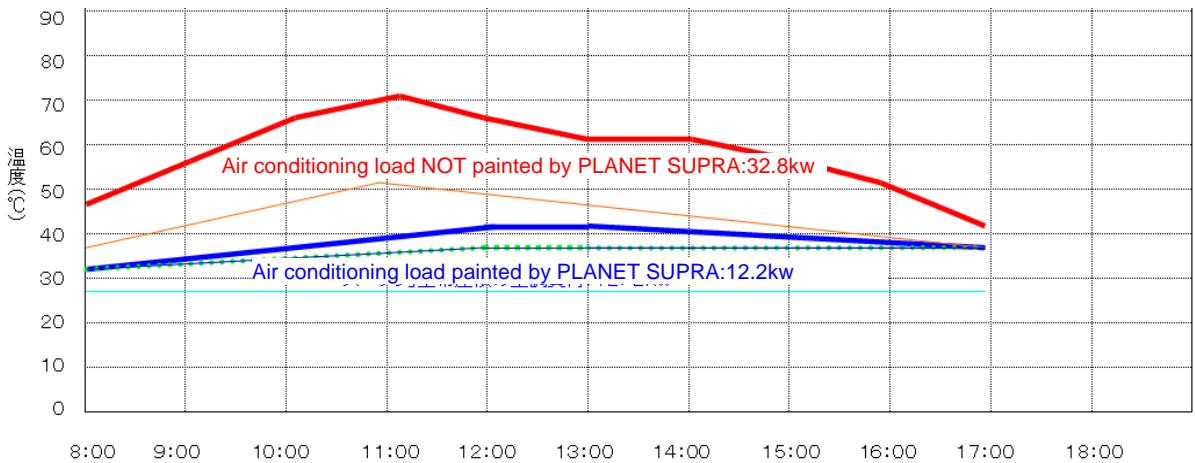
Before painting SUPRA, electric power amount of air conditioning was 32kw/day, but when we painted SUPRA, it became 12kw/day. The reduced amount was 20kw, it means 63% of energy consumption was reduced. (Chart 2)



Data logger

The main factor of this reduction is PLANET SUPRA's thermal barrier/insulation effect.

Air conditioning load and electric power consumption (Chart 2)



- Not painted by PLANETSUPRA roof surface temperature
- Painted by PLANET SUPRA roof surface temperature
- Exterior temperature
- Not painted by PLANETSUPRA attic temperature
- Painted by PLANETSUPRA attic temperature
- Air conditioner preset temperature (=25°C)

### 3. PLANET SUPRA FLEX

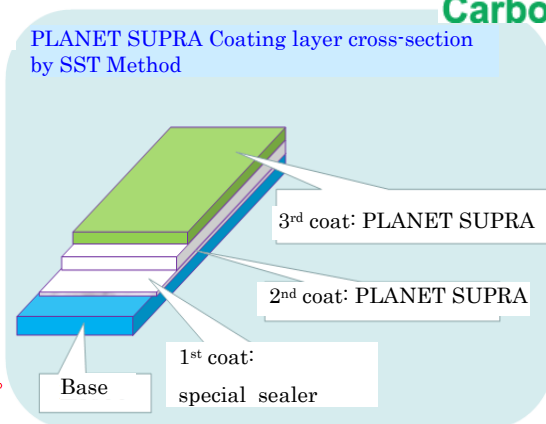
An acrylic paint, hydrophilic face structure including micro beads which has excellent thermal barrier effect and resistance to staining. Possible to paint on metals, bus, vehicles, cubicles, aluminum sash etc. and is hydrophilic, it is equipped with self-cleaning function.

Retail price ; White 48,000 yen (10kg can ) Color 55,000 yen~ vary from color to color

※In the case of SST method construction, we expect the best result of thermal barrier, insulation and anti-staining by painting PLANET SUPRA as the 1<sup>st</sup> coat and SUPRA FLEX as the 2<sup>nd</sup> coat.

※There are 2 types of SUPRA FLEX: Glossy and Not glossy

※We succeeded to create multiple color by SST Method (please refer our internet site)  
Our high toning technology allow us to control the on-target toning.



### 4. PLANET SUPRA GLASS

This is a transparent thermal barrier paint for glass. There is highly any change in the color of the glass after painting. The blocking rate of ultraviolet is more than 92% and infrared radiation is more than 80%. Through high-volume production we are aiming to bring the cost of the product down. Our target price is 9,000 yen / m<sup>2</sup>.

Surface drying time is 2 hours and complete drying time is around 48 hours.

We are now commercializing water-based SUPRA Glass, which doesn't have any odor or harmful effect. We'll start selling it after this spring. It is almost an odorless paint, it can be painted during day time, without getting worried about any smell for the inhabitants of the building.

- After complete drying, windows can be regularly cleaned with normal detergents.
- After complete hardening, it forms a film hardness of 4H
- This paint is applied by an absorbable sponge.



## 5. Primer and sealer

The water-based sealer / primer, specially designed for SUPRA is now available.

This product is composed of 2 types of liquid. Add some water and stir the liquid before painting. This can be painted on concrete, wood and metal etc.

According to water quantity, this coating can be used as a primer and also as a sealer.

- Human and Environment friendly water-based product.
- Best adhesion effect by using PLANET SUPRA.
- As we mix and make only necessary quantity on the site, we can minimize the loss.
- Carrying-in is easy, so the burden on the site will be reduced.

## 6. Future Products:

We are developing some other products as below.

- Urethane SUPRA, which has thermal barrier, insulation and waterproof effect
- Thermal barrier paint for urethane resin and paint for rooftops
- Translucent thermal barrier paint
- Thermal barrier paint for concrete, asphalt
- Anti-ultraviolet degradation water-based transparent paint
- Water-based anti-rust primer, water-based anti-rust paint

We are aiming to market the above mentioned products from this spring to autumn, and hoping a high-volume production.

If we can put these products in our products line-up, our products will be used not only by construction industry, but also by various industries including transportation industry.

We wish to contribute to the prevention of global warming by our new technology.

## 7. Japan ECO SUSCOM Association

An association founded for the purpose of promotion of Carbon Offset, and will be administrated substantially from this spring. The agents and distributors of our products will be the members of this association. Also, we'll issue the certificate of Carbon Offset for our end users.



**PRIMER**

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