

New Paint Fights Global Warming

WHAT IS OUR NEW TECHNOLOGY?

For 17 years, Shigeru Fukumoto, the founder of Fukumoto Research in Technology Co., played an active part at Kyocera Group as a ceramics engineer. Fukumoto observed that heat insulation paint technology utilized in ceramic engineering could play a role in preventing global warming. Thanks to his knowledge and experience, he created Fukumoto Research in Technology as a start-up.

Usually, heat insulation paint is made up of a mixture of glass beads and volcanic ash. With the use of ceramic grains, however, the heat insulation effect is heightened. Each grain of ceramic powder contains a hole the size of a micron unit. Since ceramic powder is lighter than the paint it is mixed with, it floats in the upper layer of the paint. Therefore, when applying the paint to a surface, the ceramic powder in the paint will act as an insulator.



WHAT SETS US APART?

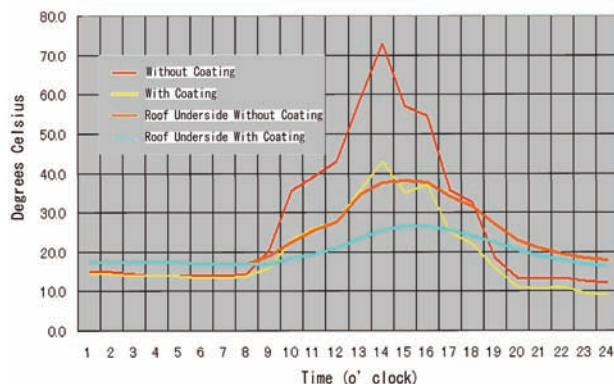
This innovative paint from Fukumoto Research in Technology Co. has more than one useful function. Not only does it insulate, but it also has a heating/warming effect.

One experiment was conducted by applying paint to part of a barn roof, above, and comparing the temperatures of both the painted and unpainted sections. While the temperature of the roof without the paint reached 83° C (181° F), the temperature of the roof with the paint had gone up to only to 47° C (117° F), a difference of no less than 36° C (64° F). Moreover, when the outside temperature fell to 0° C (32° F), the inside of the barn maintained a temperature of 20° C (68° F), proving the existence of a heating effect (see left).

Another positive effect the paint can have is one of acting in an antibacterial and antiviral capacity. This can be achieved by adding antibacterial and antiviral agents to the holes in the ceramic grains. Although antibacterial and antiviral agents can have a heavy specific gravity, they emerge on the surface of the paint because they have

been added to the lighter ceramic grains. Using such methods makes the paint useful for the prevention and removal of micro-organisms in buildings.

Galvanized Steel Plate Roof Temperature



WILL IT SELL?

Currently, this innovative paint from Fukumoto Research in Technology Co. is being used in the construction of agriculture facilities in southern Japan. Over the past 10 months, it has been used for coating more than 23,000 square meters (247,570 square feet) of various facilities. In Japan, inquiries are coming in from such industries as residential and commercial construction, renovation and remodeling, and professional painting. Through agency contracts Fukumoto Research in Technology Co. is expanding its sales, and expects applications to extend to hospital and school facilities. With drug companies developing various antibiotics on an ongoing basis, Fukumoto Research is searching for a partner to create an optimal antibacterial product for hospital and school applications with the capability of mass-production.



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