

SOLAR HIGH REFLECTIVE COATINGS

MIRACOOL®

MIRACOOL CO., LTD. 30/SEPTEMBER/2010



Solar energy gives a lot of benefit to the earth. However, solar radiation also causes temperature rises inside houses and buildings.

In case roof surface absorbs the solar energy.

Due to absorption of solar radiation, roof temperature becomes higher than 60°C, which is hot enough to fly eggs.

Low Reflection Room temp. becomes much higher than the ambient temp. as the result of heat flow from rooftop into the room.

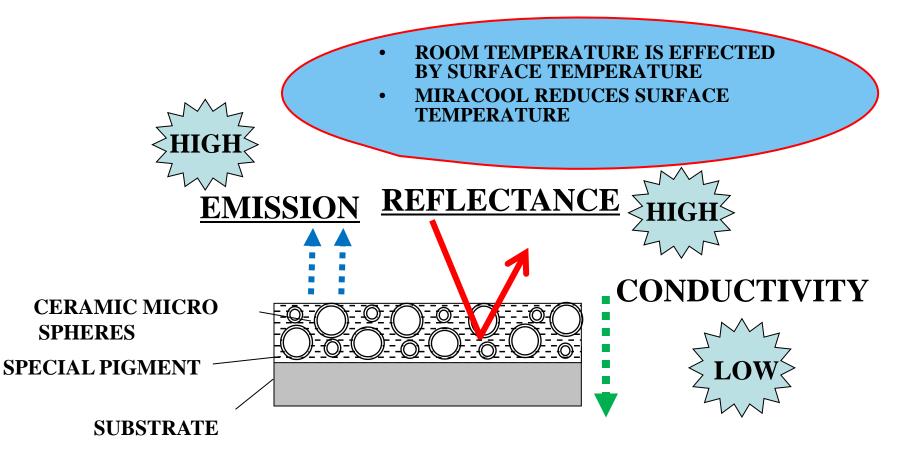
In case roof surface reflects the solar energy.

Roof does not become so hot due to high reflection of solar energy on rooftop.

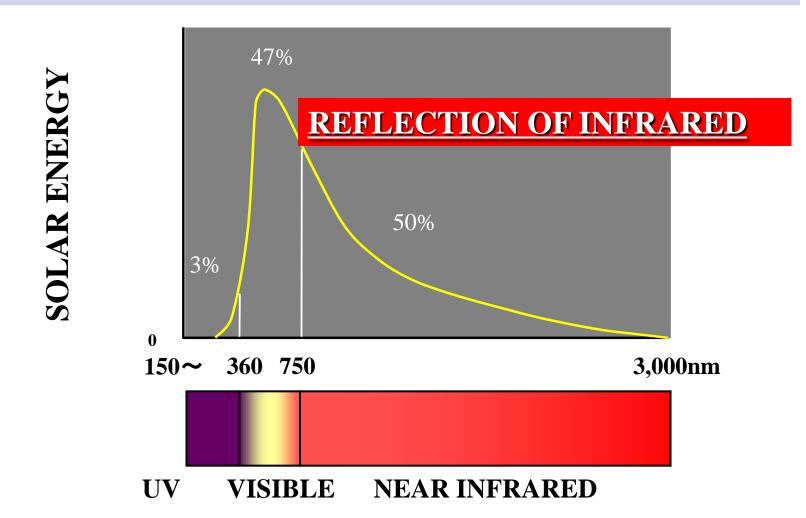
High Reflection

Room temp. is more or less the same as outside temp as heat flow from the rooftop is very little.

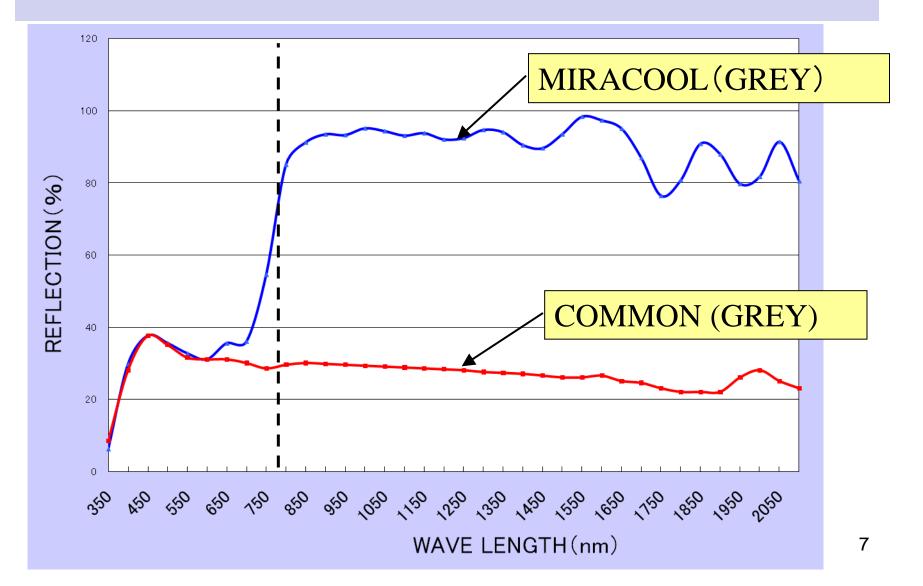
MECHANISM OF HEAT SHIELD FUNCTION

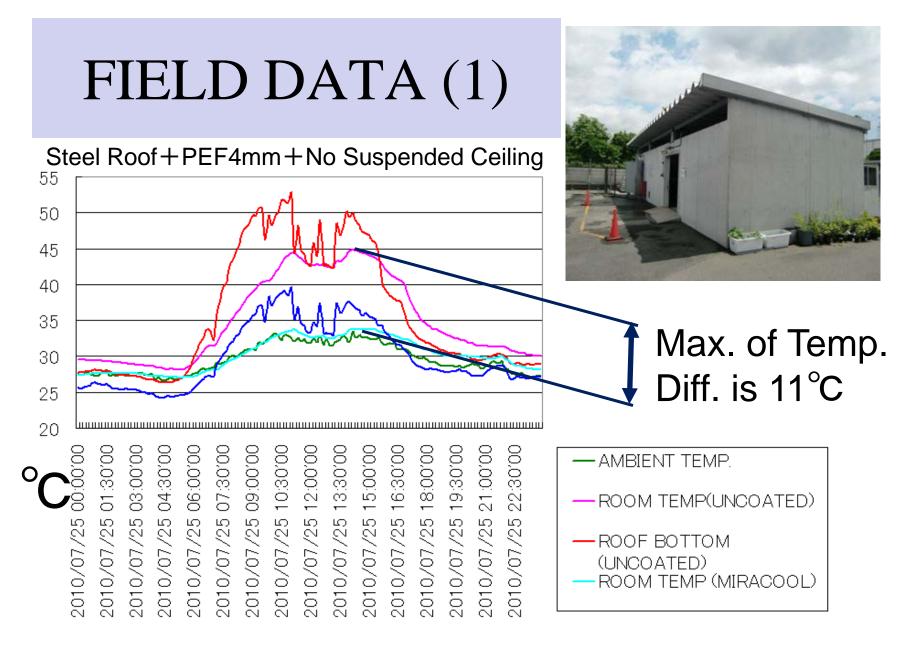


SOLAR SPECTRUM



REFLECTION OF INFRARED

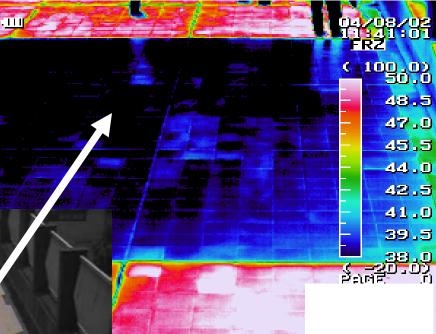




FIELD DATA (2-1)

(CONCRETE ROOF OF A PRIMARY SCHOOL IN TOKYO METROPOLITAN)

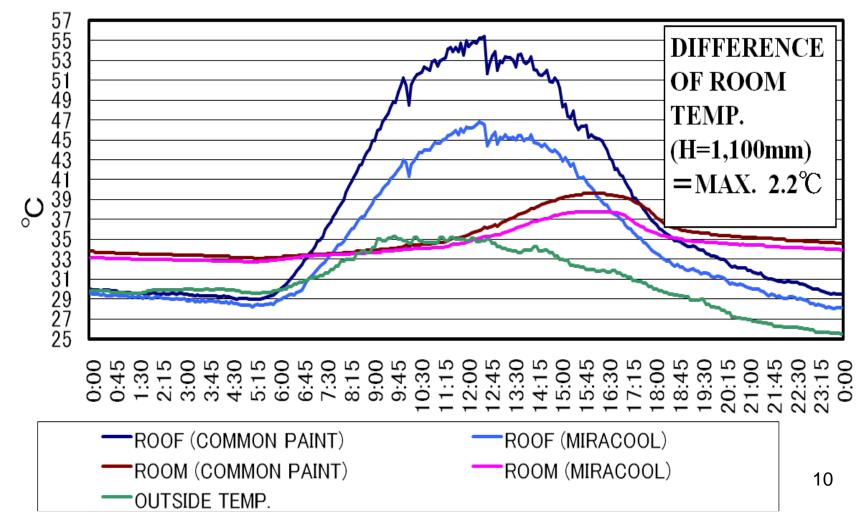




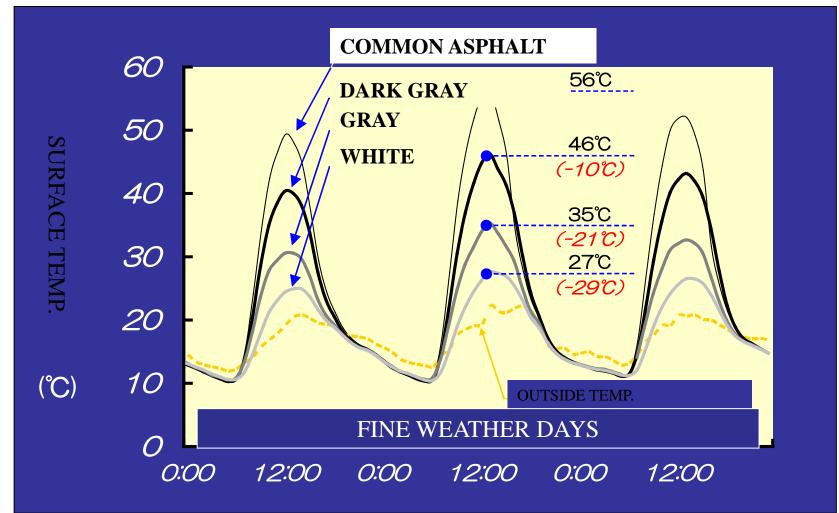
THERMOGRAPHY

FIELD DATA (2-2)

Concrete tile + Waterproofing + Reinforced Concrete + Suspended ceiling



FIELD DATA (PAVEMENT)



WINNER OF GRAA OF INTERNATIONAL ROAD FEDERATION

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INTERNATIONAL ROAD FEDERATION Better Roads, Better World

July 18, 2008

Mr. Masahiko Iwarna Nippo Corporation 3-3-34 Higashi-Shiragawa-ku Tokyo 140-002 JAPAN

Dear Mr. Iwama:

On behalf of the International Road Federation's (IRF) worldwide leadership, I am pleased to inform you that your 2008 IRF Global Road Achievement Awards (GRAA) application submission, entitled "Development of Solar Heat-Blocking Pavement", has been selected as the Winner of our Research category.

The selection was made by an independent group of judges from around the world with expertise in the roadway development industry. Your organization's project now joins an elite group of current and past GRAA winners.

Our GRAA Project Manager Magid Elabyad will be in contact with you next week to disease the dealls of the Award. If you have any questions in the meantime, please do not hesitate to contact Magid by telephone at +1 703 535 1001 or by email at melabyad/gitcheww.erg.

Once again, congrutulations on your outstanding accomplishment.

C. Parick Salley Chief Escoutive Officer International Road Federation - WPC

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The International Road Federation's Global Road Achievement Awards (GRAA) program is a competition to honor and recognize road-industry projects that demonstrate excellence and innovation in road development worldwide. 12

BUILDINGS



FACILITIES



PAVEMENTS



ATHLETIC FILEDS

