



GOING SOLAR GOES FURTHER WITH Thermoshield

realcolor®

Solar power has steadily been the trend when it comes to using alternative renewable energy sources in recent years. Using solar panels provide environmental sustainability while helping property and homeowners to save on energy bills. There are various types of solar panels that have been introduced into the market, including solar roof shingles, polycrystalline and monocrystalline panels as well as thin film solar cells. However, have we considered the best roofing type that most complements solar panel applications towards saving more energy? Let's find out:

RIGHT PAIRING FOR ENERGY EFFECTIVENESS

When choosing to use solar panels, having the right type of roofing material is an important part of the consideration. The good news that a good variety of roofing material supports the installation and usage solar panel systems. However, taking a step further, it is discovered that certain roofing materials are better as foundations for sustaining solar panel systems.

Before that, it is vital to understand how cool roofing materials like coated metal roofs work to increase energy efficiency in a building. These cool roofs, especially those with lighter colours help



Thermoshield
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STAY COOL ALWAYS. **BE CLEAN. BE DURABLE**

Cool roofing system that reduces heat absorption while retaining its glossiness and colour vibrancy.



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to reduce the heat build-up inside the building by reflecting the sun's energy (solar reflectance) away from the building.

This helps to cut energy costs by keeping the top floors cooler, thereby improving the comfort of occupants, reducing maintenance costs. Metal cool roofs can last around 50 years on average while helping to reduce the urban heat island effect in cities.

BEST COMPLEMENT TO SOLAR PANELS

While metal roofs are known for their energy-efficient feature, did you know it is also one of the best materials to pair together with solar panel installations?

There are several reasons for this. The most important reason is that combined with a cool roof, solar panels' performance can be increased as much as 10%, according to an article in the US Building Digest ("Photovoltaics Combined With A Cool Roof Can Increase System Performance By As Much As 10%", shared on Better Paintings and Coating's website). This combination can optimize the sustainability, energy and long-term use of a building.

In an experimental study done in the United Arab Emirates (An experimental study of the impact of cool roof on solar PV electricity generations on building rooftops in Sharjah, UAE), preliminary results showed a "somewhat significant impact of cool coating paint on the generated electrical power of the solar PV utilised panels" whereby its energy performance increased approximately between 5% and 10%.

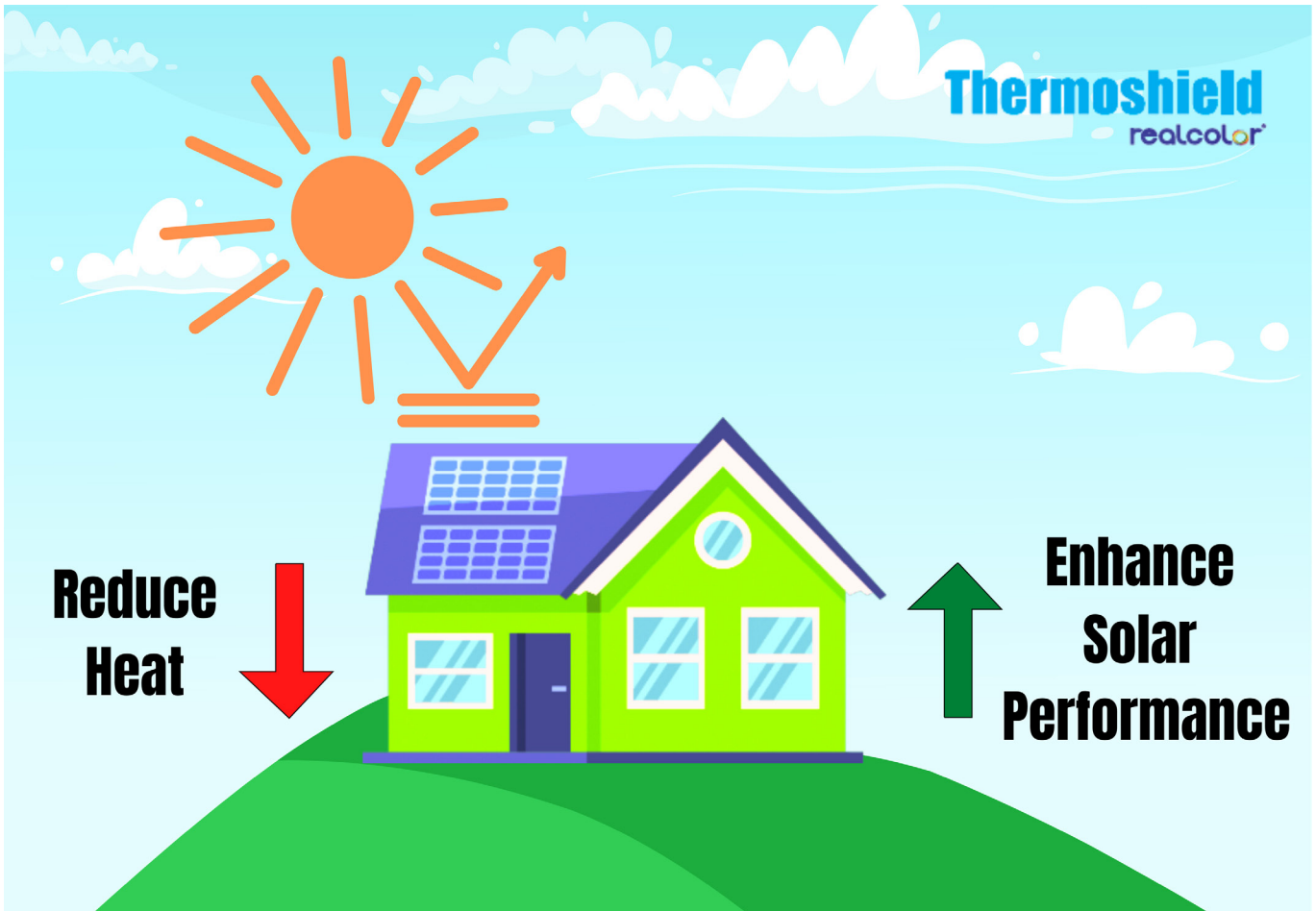
Consequently, these factors help to enhance the energy consumption while also significantly improving the solar panels' systems operations.

Last but not least of all, the metal roof's solid surface makes it easier to install solar panels as the panels can easily be fastened onto the roof's seams. This helps save on labour costs.

COOL ROOFING'S PLACE IN THE SUN

In Malaysia, building and homeowners can easily access cool roofing systems like realcolor® Thermoshield which do more beyond protecting building occupants from the sun and rain. Here's how:-

- **Thermal control** - CSC Steel's realcolor® Thermoshield is uniquely designed to reduce heat absorption, retain its glossiness and maintain its colour vibrancy. It is based on pre-painted galvanized steel (PPGI), or color-coated steel technology that is generally used in exterior architectural structures and building materials such as roofing, wall cladding, fencing, wall panels and advertising boards. Its solar reflectivity provides thermal controlling benefits that can help keep your house or building cool and lifts the burden from your air-conditioning unit to keep things cool inside.
- **Self-cleaning feature** - Ease of mind comes with realcolor® Thermoshield's self-cleaning feature. This is largely thanks to the hydrophilic pigment on realcolor® Thermoshield's surface



which helps transport dirt down together with the rain water. The shield coating modifies the flow of the droplets to pass over evenly due to a low water-contacting angle on the steel's surface). In short, this means less maintenance while enabling building and homeowners to enjoy a longer span of its usage life.

- **Highly anti-corrosive** - Apart from that, realcolor® Thermoshield is certified by SIRIM's ISO 9223 under the C5I (Industrial) category, essentially the highest anti-corrosion rating in the market. Its excellent corrosion-resistant feature simply translates to realcolor® Thermoshield's durability that can ensure building and homeowners of its longevity of use.
- **Great formability** - Besides being an efficient conduit of energy, realcolor® Thermoshield has excellent formability. Where applied, architects and builders are able to specify for creative designs due to this feature besides easy storage and handling overall.
- **Colour vibrancy** - Its high quality and superior vibrant colours provide great options not only to enhance the building's aesthetic and uplift the building's value but the choices enable for better designs that could also complement surrounding neighbourhood's designs while being green.

However, that's not all, realcolor® Thermoshield also provides a



warranty (terms and conditions apply) of up to 30 years against perforation, 12 years against colour fading or chalking and 5 years against dirt staining.

All in all, realcolor® Thermoshield is more than a cool roofing system. It doubles as a great complement for any solar panel installations which enhances the PV's performance and energy efficiency. Going solar can now go further with the right companion.

To find out more about realcolor® Thermoshield please scan this QR code and look us up today.

