



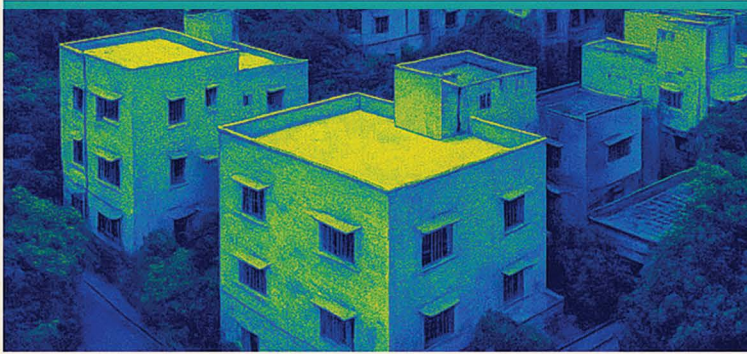
NATCOOL SERIES

Your World, Our Colors

Cool Shades

Is developed to reduce the temperature of the architectural components being exposed to the sun. These are heat reflective Powder Coatings that helps in reducing the energy consumption of the facility and provide comfort to the people residing in the facility.

These Coatings are developed using special IR base pigments that helps in reflecting the majority of solar radiations falling on the coated objects, resulting in less heat absorption.



COATED



UNCOATED

SURFACE TEMPERATURE (°C)



WHY NATCOOL?

Energy Efficiency



Energy Saving



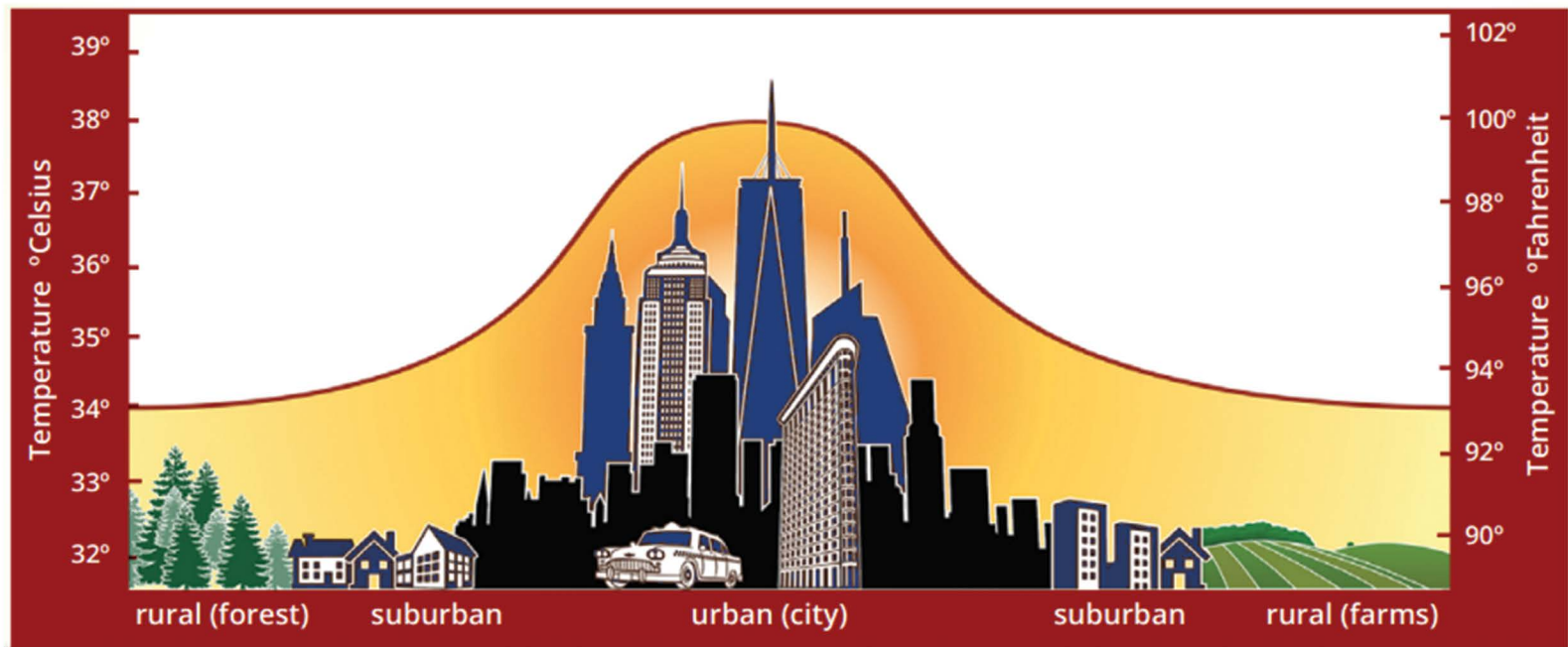
Temperature Reduction



Eco Friendly

As summer approaches and temperatures begin to rise, the demand for energy to maintain cool and comfortable indoor environments increases significantly. NATCOOL Shades collection of powder coatings presents a cutting-edge and sustainable solution to effectively reduce temperatures and lower energy consumption in buildings.

This innovative and environmentally responsible powder coating is designed to reflect solar heat when applied to building components. By reflecting heat away from the structure, it **lowers the temperature of both the external and internal surfaces**. This reduction in surface temperature consequently leads to a cooler interior, resulting in **substantial energy savings**.



Green Choice

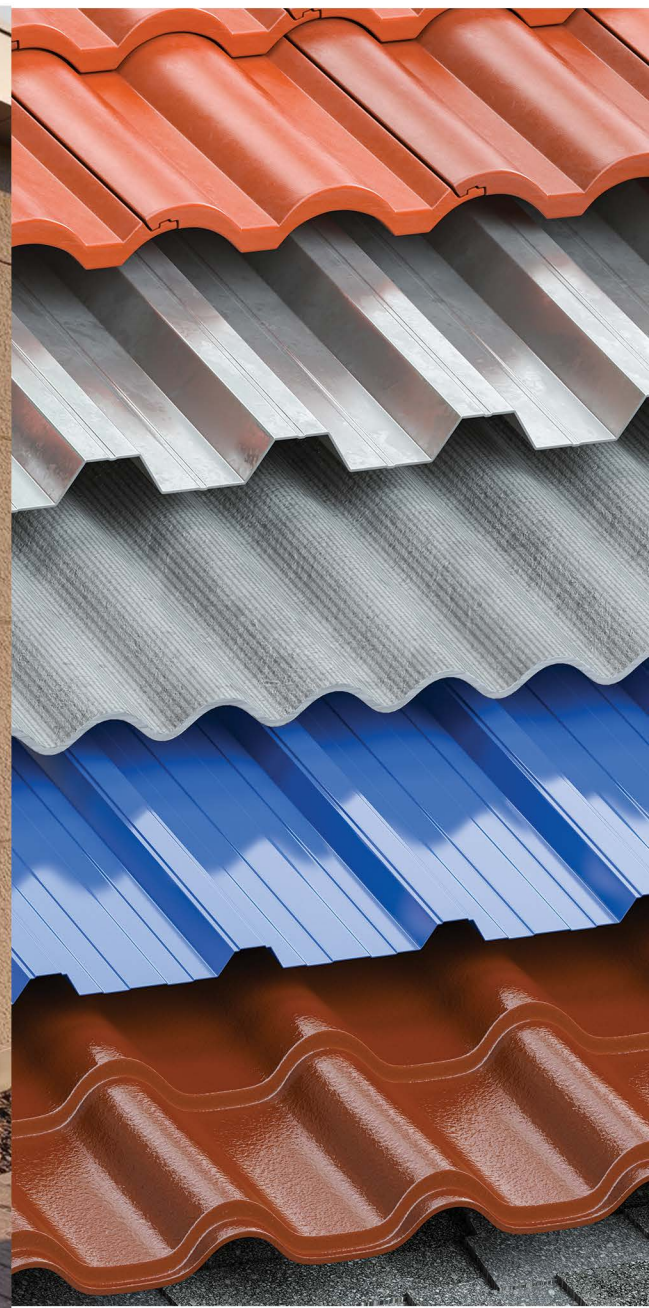
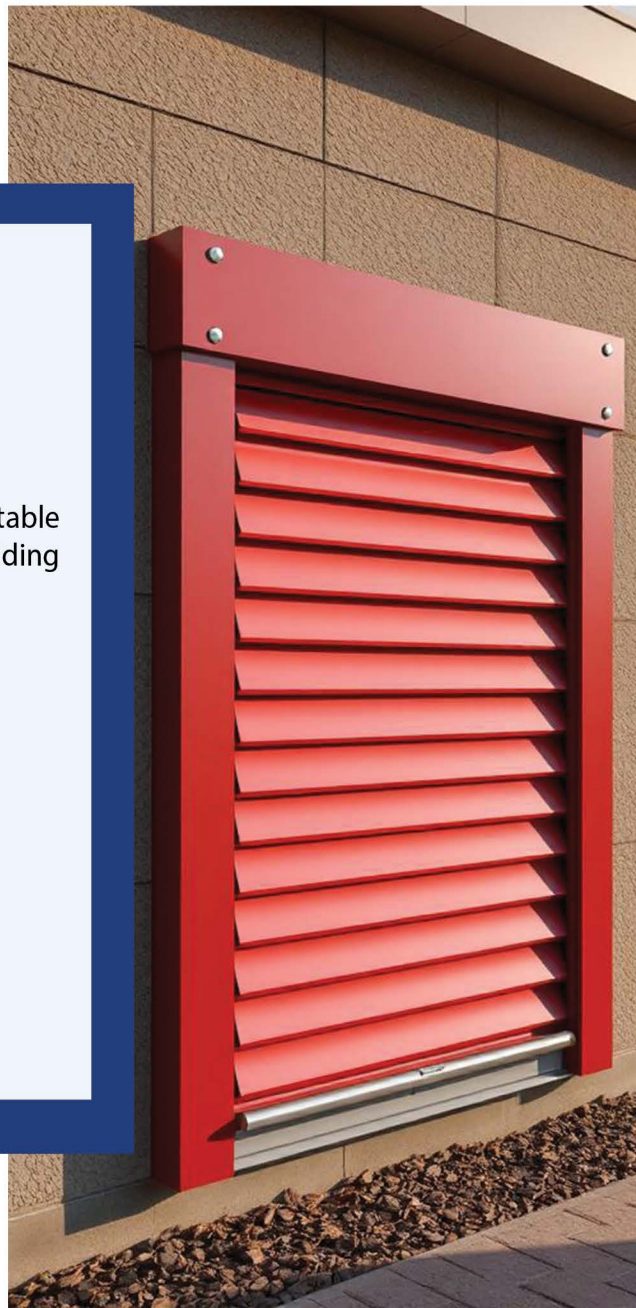
It's important to remember that the impact of heat isn't limited to just the inside of buildings. As urban structures absorb solar radiation, they release this heat back into the atmosphere, contributing to the urban heat island effect and raising the overall air temperature in surrounding areas.

Utilizing heat-reflective materials, such as coatings from our Cool Shades collection, can play a significant role in mitigating this issue. By reducing the amount of heat absorbed by buildings, these coatings help to keep **urban air temperatures lower**. This, in turn, decreases the demand for building cooling systems and enhances the comfort of city inhabitants.

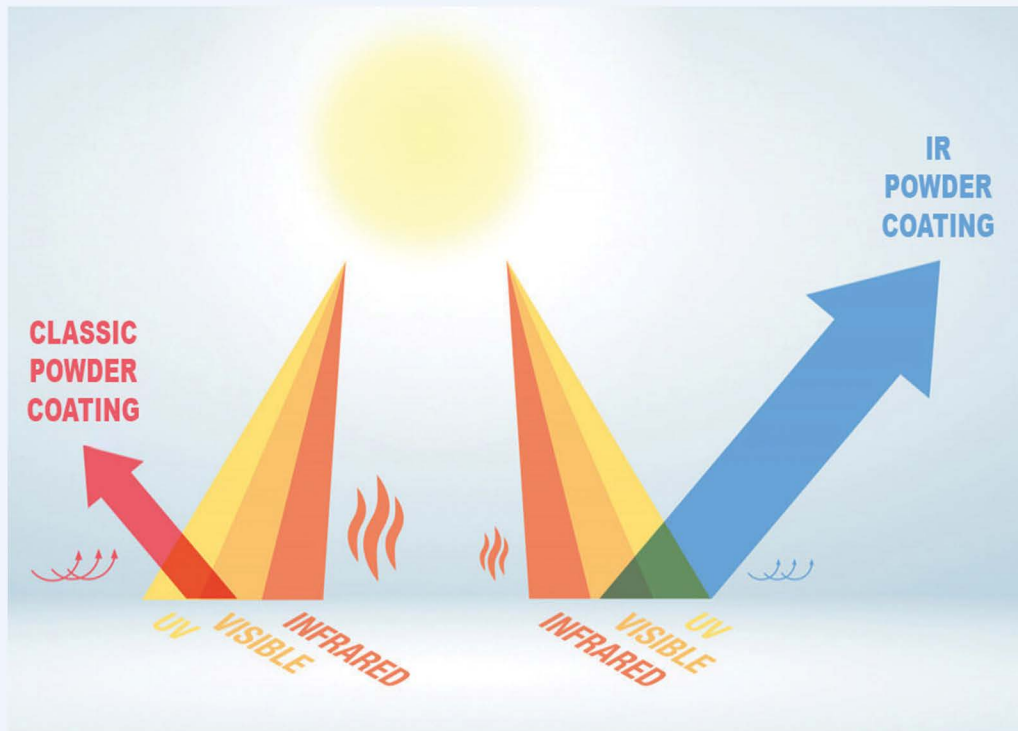
Energy Efficiency

Our innovative powder coating is suitable for application on a wide range of building components, such as:

- Shutters
- Louvers
- Generator rooms
- Wall panels
- Roofs
- Handrails
- Window frames
- Curtain walls



Total Solar Reflectance (TSR)



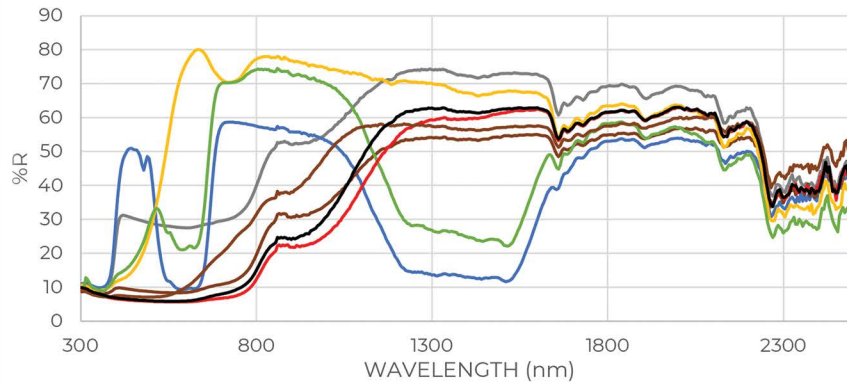
The Total Solar Reflectance (TSR) of a surface indicates how much solar energy it reflects, with higher TSR values meaning cooler surfaces. Traditional dark-colored systems typically have low TSR. However, all colors in our Cool Shades collection **boast a TSR above 20%**. This high reflectivity helps prevent heat from entering buildings, leading to increased energy savings and improved interior comfort.

Research indicates that incorporating heat-reflective materials, even just on exterior window frames in hot regions such as the Middle East and South East Asia, can significantly decrease a building's energy consumption.

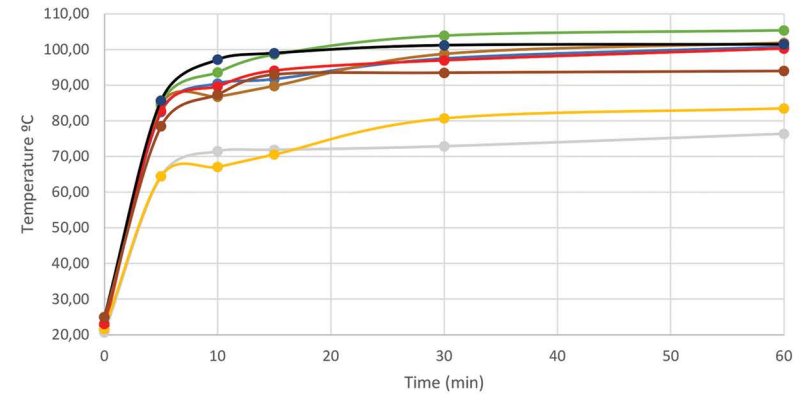
Beyond these energy-saving benefits, the Cool Shades collection provides an appealing aesthetic and offers enhanced durability and weathering performance. It is also backed by Qualicoat Class 1 and Class 2 certifications.









RANGE OF NATCOOL IR SERIES

Measurement Of Total Solar Reflectance (TSR)



Measurement Of Heat Build-Up (HBU)



| | TSR (%) ASTM G173-03 | Surface HBU (°C) ASTM D4803-18 | 0 min | 5 min | 10 min | 15 min | 30 min | 60 min | ΔT (°C) |
|---|-------------------------|-----------------------------------|-------|-------|--------|--------|--------|--------|---------|
|  ASTRA BLUE | 37.1 | 32.72 | 22.60 | 82.50 | 90.50 | 91.70 | 97.50 | 100.80 | 78.20 |
|  ASH GREY | 42.26 | 25.5 | 20.70 | 64.50 | 71.50 | 71.90 | 72.90 | 76.40 | 55.70 |
|  BRACKEN BROWN | 23.61 | 30.55 | 21.70 | 84.50 | 86.80 | 89.80 | 98.80 | 101.90 | 80.20 |
|  DAFFODIL YELLOW | 60.07 | 23.9 | 21.70 | 64.50 | 67.10 | 70.60 | 80.70 | 83.50 | 61.80 |
|  FERN GREEN | 44.37 | 29.6 | 23.10 | 84.80 | 93.60 | 98.60 | 103.90 | 105.40 | 82.30 |
|  JETCOOL BLACK | 20.53 | 30.39 | 23.10 | 82.80 | 89.70 | 94.10 | 97.00 | 100.30 | 77.20 |
|  STANDARD COOL BLACK | 22.42 | 29.62 | 25.00 | 85.70 | 97.20 | 99.00 | 101.20 | 101.50 | 76.50 |
|  MOCHA BROWN | 28.64 | 28.78 | 25.00 | 78.50 | 87.40 | 93.00 | 93.50 | 94.00 | 69.00 |

TSR Values of RAL COLORS



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