

Understanding Solar Absorptance and Solar Reflectance in UniCote® Steel Roof Colours

What to Consider When Choosing a Roof Colour



Project | Mermaid Waters House
Colour | UniCote® Hampton's White

UniCote®

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When it comes to selecting the color of your UniCote® steel roof, it's essential to consider more than just appearance. The color you choose can significantly impact your home's energy efficiency and comfort. Here's a breakdown of what Australian homeowners need to know about Solar Absorptance (SA) and Solar Reflectance Index (SRI).

Let's start with Solar Absorptance (SA). This refers to how much sunlight your roof absorbs. Picture wearing a dark shirt on a scorching Australian summer day – it absorbs more sunlight, making you feel warmer. Your roof behaves similarly. Opting for a darker color means your roof will absorb more sunlight, potentially leading to higher indoor temperatures. Conversely, lighter colors reflect more sunlight, helping to keep your home cooler. So, if you're looking to lower your cooling costs and maintain comfort during hot Australian summers, consider lighter-colored roofing materials.

Now, onto Solar Reflectance Index (SRI). This metric gauges how effectively your roof reflects sunlight and releases absorbed heat. Think of it as your roof's ability to stay cool under the Australian sun. A higher SRI indicates that your roof reflects more sunlight and releases heat more efficiently, helping to keep your home cooler. When selecting a roof color, prioritize materials with a high SRI value to potentially reduce your energy bills and create a more pleasant indoor environment.

For Australian homeowners, what does this mean in practice? When choosing a UniCote® steel roof color, take into account the local climate and your home's orientation. If you reside in a hot and sunny area like Queensland or Western Australia, opting for lighter-colored roofing materials can help keep your home cooler and minimize energy usage. Conversely, if you're in a cooler region like Tasmania or Victoria, darker roof colors may be more suitable to absorb heat and maintain warmth during winter.

In summary, when deciding on a roof color, consider both Solar Absorptance (SA) and Solar Reflectance Index (SRI). Aim for lighter-colored materials with high SRI values to promote energy efficiency and comfort, particularly in Australia's warmer climates. By understanding these concepts, you can make informed choices that may benefit both your household budget and the environment.

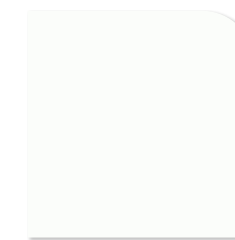
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Solar Absorptance (SA) is the fraction of the total incident solar radiation that is absorbed by the roofing material. It is expressed as a ratio between 0 and 1, with a lower number a cooler option. These are nominal values calculated in accordance with ASTM E 903-96.

Solar Reflectance Index (SRI) is a measure of the solar reflectance and emissivity of materials. Measured on a scale of 0 (least reflective) to 100 (most reflective). These are nominal values calculated in accordance with ASTM E1980-11.

The colours, patterns and design shown are provided as a guide only. We strongly recommend comparing your choice with an actual steel sample as colour and textural variations may apply. Please check availability of your chosen colour with your supplier. UniCote® is a registered trade mark of Selection Steel Trading Pty Ltd. © 2023 Selection Steel Trading Pty Ltd. ABN 37 005 324 407. All rights reserved.

Essential range



Hamptons White
SA 0.27 | SRI 90



Off White
SA 0.38 | SRI 81



Merino
SA 0.45 | SRI 65



Smooth Cream
SA 0.37 | SRI 76



Dusk
SA 0.57 | SRI 49



Birch
SA 0.47 | SRI 62



Gull Grey
SA 0.43 | SRI 68



Montauk
SA 0.39 | SRI 73



Water Mill
SA 0.45 | SRI 65



Long Island
SA 0.45 | SRI 65



Stony Brook
SA 0.59 | SRI 46



Wallaroo
SA 0.64 | SRI 39



Basal
SA 0.69 | SRI 33



Iron Grey
SA 0.74 | SRI 26



Mountain Blue
SA 0.75 | SRI 25



Armour Grey
SA 0.58 | SRI 46



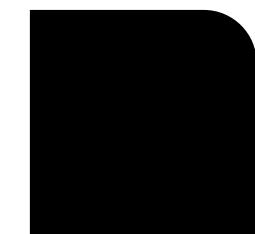
Jasmin Brown
SA 0.68 | SRI 34



Slate Grey
SA 0.71 | SRI 30



Monolith
SA 0.73 | SRI 28



Ebony
SA 0.96 | SRI 0



Heritage Red
SA 0.74 | SRI 26



Caulfield Green
SA 0.75 | SRI 25



Mist Green
SA 0.60 | SRI 45

Available in:
UniCote® Select
UniCote® Coastal
UniCote® Extreme