



clean

Colorbond™
THERMATECH™

**DESIGNED FOR VISIONARIES
BUILT FOR NATURE.**





CLEAN COLORBOND™ STEEL TAKES YOUR ARCHITECTURAL DREAMS TO THE SKIES.

The development of Clean COLORBOND™ steel with Thermatech™ reflects BlueScope Steel's enduring qualities - innovative, superior, cutting-edge and trend leading. With our Thermatech™ solar reflectance technology, we are helping to create a future that is comfortable not just for people, but for the environment too. Combined with Clean COLORBOND™ steel's renowned durability, colour retention and flexibility, you now have the power to shape the landscape to suit both your architectural vision and conscience.



**CLIMATE CONTROL
STARTS HERE**





WHAT IS THERMATECH™ SOLAR REFLECTANCE TECHNOLOGY?

- Thermatech™ solar reflectance technology is incorporated into Clean COLORBOND™ steel to lower surface temperature by absorbing less heat from the sun. In other words, Thermatech™ is able to reflect the solar heat off roofing material.
- Solar Reflectance Index (SRI) is a numerical value used to represent a constructed surface's ability to reflect solar heat. The SRI for standard black is 0 and a standard white is 100. Higher SRI values indicate a roof whose surface temperature is lower.
- Thermatech™ technology optimizes the thermal performance of every colour without changing their appearance. The roof therefore consumes less energy for air-conditioning and helps to mitigate the Urban Heat Island (UHI) effect.






WHY IS THERMATECH™ IMPORTANT?


- Roofing is a key consideration when designing building to be thermally efficient, and is essential in mitigating the Urban Heat Island (UHI) effect.
- With the increased focus on global warming and the government focus on climate change, it has directed the attention to the need for greater thermal efficiency, especially in a tropical climate.
- Green building rating tools such as Leadership in Energy and Environment Design (LEED) and Malaysia's Green Building Index (GBI) require materials with high SRI values for mitigating the UHI effect. Clean COLORBOND™ steel with Thermatech™ is able to provide higher SRI values thus complying to the green building requirements.
- COLORBOND® steel/Clean COLORBOND™ steel has been one of the core building materials for more than 40 years in Australia / Asia and for the past 15 years in South Africa. Clean COLORBOND™ steel with Thermatech™ is leading the innovations again thus fulfilling the needs and requirements of the building industry.





MORE OF EVERYTHING PEOPLE LOVE ABOUT CLEAN COLORBOND™ STEEL

- Elegance, colour, design versatility, lightweight strength and durability are just some of the features that have made Clean COLORBOND™ steel a favourite with architects, developers, builders, designers and the public alike.
 - Now, with the inclusion of Thermatech™ solar reflectance technology, Clean COLORBOND™ steel gives the building industry even more of what it wants. A wider choice of thermally efficient colours and even greater durability because of reduced heat stress on the entire roofing system.
 - Corrosion resistance performance is a key focus for Clean COLORBOND™ steel with AZ150 coating which is able to provide stronger and durable resistance against corrosion as compared to conventional pre-painted steel. Research has shown that the AZ150 coating class is able to provide up to 4 times additional lifespan as compared to the traditional galvanised coating Z275 in the similar environment.
 - If metallic coatings are reduced then this will impact performance of the roofing sheets. Research has shown that the reduction in metallic coating will impact on the performance of the roofing sheets. Thus if the galvanised coating is reduced to Z200 then the AZ150 coating class will provide you with up to 5.5 times the additional lifespan in the similar environment.
- 



The lifespan of your roofing sheets can also be compromised if you reduce the AZ coating to an AZ100 coating class. An AZ150 coating class has twice the lifespan of an AZ100 coating class. Why compromise the life of your roof sheeting by using lower coating masses?

- Quality from BlueScope Steel gives you peace of mind that the minimum coating mass on our ZINCALUME® steel substrate is AZ150.
- Clean COLORBOND™ steel is backed by a BlueScope Steel material warranty which needs to be applied for prior to commencement of construction.

**Warranty terms and conditions apply.*





LOWER ENERGY CONSUMPTION, FOR THE SAME COMFORT

- Thermatech™ solar reflectance technology acts as an added insulation in hot weather, making it easier for air-conditioning to keep buildings cool.
- In moderate to hot climates, compared to roofing material of similar colour with lower solar reflectance, Clean COLORBOND™ steel can reduce annual cooling energy consumption by up to 15%*.
- Clean COLORBOND™ steel with Thermatech™ technology reduces roof surface temperature by up to 6°C*, depending on the colour.
- Greater comfort while using less energy helps to reduce cost and is friendlier to the environment.

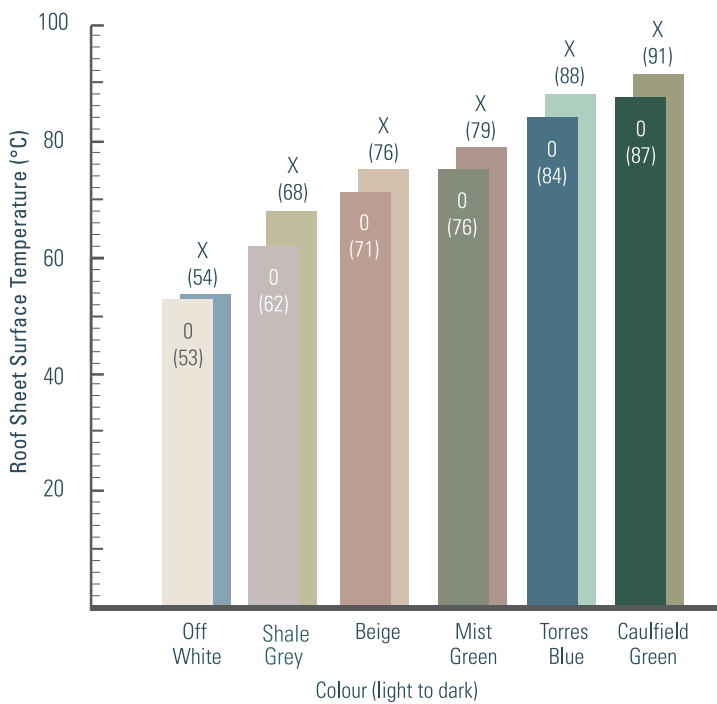
* Depending on level of insulation, colour, building shape and function

* Depending on the level of insulation, colour, building shape and function





Comparison of roof sheet temperatures (insulated*):



0 - Clean COLORBOND™ steel
 X - Standard pre-painted steel

* Assume 1000W/sq.m.,
 Exterior Temperature = 36°C, no wind;
 Thermal emittance = 0,85;
 100mm bulk insulation

The temperature of the roof sheet is lowered due to the Thermatech™ technology in Clean COLORBOND™ steel. This in turn cuts down the heat radiation into the building, making the interior of the building cooler.

CONTEMPORARY LIVING WITH **CLEAN COLORBOND™ STEEL**

Modern. Beautiful. Lasting.

YEAR-ROUND CLIMATE CONTROL

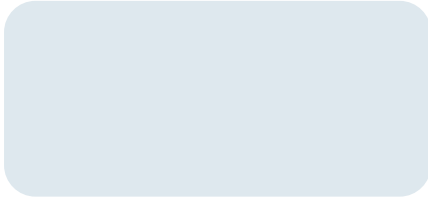
- Designing and building homes to be comfortable all year round can be a challenge with many considerations, including aspect, cross-ventilation, insulation, climate and more.
- A Clean COLORBOND™ steel roof not only reduces the amount of solar radiation absorbed, but is also very effective at re-radiating heat. With the addition of Thermatech™ solar reflectance technology, darker coloured Clean COLORBOND™ steel products also absorb less energy, creating the same advantages of a cooler roof and a cooler building.
- Thermal comfort is maintained by the dirt resistance property in Clean COLORBOND™ steel. The solar reflectance of roofing sheets will be influenced by the amount of dirt staining, therefore retaining a clean appearance is very important for maximising the cooling effect of roofing sheets.



CLEAN COLORBOND™ STEEL Colour Chart

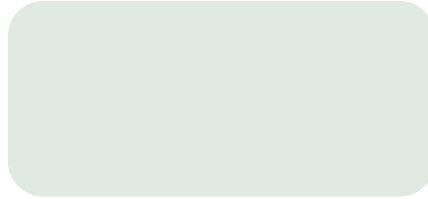
Offering you a vibrant selection to match your most prestigious designs.

new!



Mosaic Blue AZ150 /
Nexus Blue AZ200 (82*)

new!



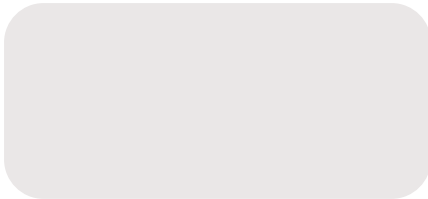
Aloe Green AZ150 /
Wasabi Green AZ200 (82*)

new!



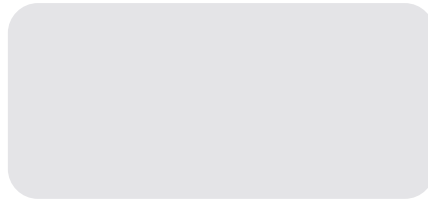
Fantasy Yellow AZ150 /
Solaris Yellow AZ200 (80*)

new!



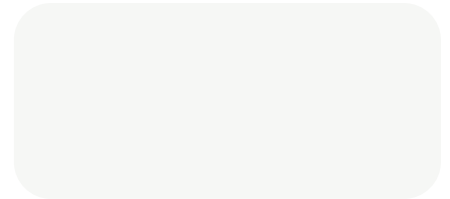
Neutral Beige AZ150 /
Urban Beige AZ200 (83*)

new!

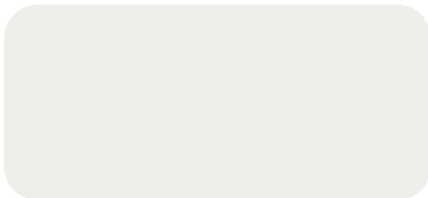


Ivory Grey AZ150 /
Cosmic Grey AZ200 (81*)

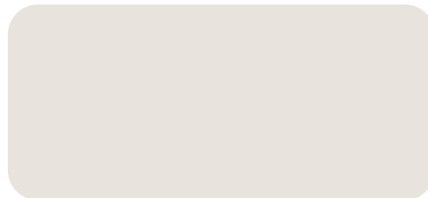
new!



Thredbo White AZ150 /
Eco White AZ200 (89*)



African White AZ150 /
Amazing White AZ200 (85*)



Off White AZ150 /
Enduring White AZ200 (85*)



Cape White AZ150 /
Cedarberg White AZ200 (79*)



African Cream AZ150 /
Durable Cream AZ200 (70*)



Shale Grey AZ150 /
Ultimate Grey AZ200 (69*)



Dune AZ150 /
Sahara Sands AZ200 (61*)



Armour Grey AZ150 /
Livid Grey AZ200 (47*)



Heritage Red AZ150 /
Enchanting Red AZ200 (33*)



Volcanic Grey AZ150 /
Ore Grey AZ200 (29*)



Colonial Green AZ150 /
Garden Route Green AZ200 (27*)



African Blue AZ150 /
Two Oceans Blue AZ200 (27*)



Cape Charcoal AZ150 /
African Charcoal AZ200 (19*)

Note: 1. All colours shown are close to the actual Clean COLORBOND™ prepainted steel colour as modern printing techniques permit.

2. SRI figures are approximate values only - based on paint formulation and/or metallic coating thickness.

3. SRI is calculated using ASTM E1980-01 and Medium Convection Coefficient (12) value reported.

* Solar Reflectance Index (SRI) – ASTM E1980

* SRI is calculated using ASTM E1980-01 with Medium Convection Coefficient (12) value reported. This data is approximate values only - may vary based on paint formulation and/or metallic coating thickness

The Clean COLORBOND™ steel colours shown in the leaflet have been reproduced to represent actual product colours as accurately as possible. However, we recommend you check the chosen colour against actual samples of the product before purchasing as varying light conditions and limitations of the printing process affect colour tones.

Material Specification

Clean COLORBOND™ steel XRW - AZ150

0.47mm TCT or 0.53mm TCT in Clean COLORBOND™ steel, metallic coating AZ150 (minimum 150g/m² coating mass), Grade G550 (minimum yield strength 550 MPa) or G300 (minimum yield strength of 300 MPa), super polyester paint system, 25um on topside and 10um on reverse side.

Fasteners to comply with Australian Standard Class 3 or 4.

Flashing or ridge capping should be manufactured from the same material as used for the roofing.

Clean COLORBOND™ steel ULTRA - AZ200

0.47mm TCT or 0.53mm TCT in Clean COLORBOND™ steel - Ultra, metallic coating AZ200 (minimum 200g/m² coating mass), Grade G550 (minimum yield strength 550 MPa) or G300 (minimum yield strength 300 MPa), super polyester paint system, 25um on topside and 10um on reverse side.

Fasteners to comply with Australian Standard Class 4.

Flashing or ridge capping should be manufactured from the same material as used for the roofing.

For product identification and originality, please check the reverse side of the coil for the following branding text.

Clean COLORBOND (TM) steel made by BlueScope G550 AZ150 0.53TCT 16:18 01:APR:13 11



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