

THERMATECH™ Technology

Thermal Comfort for your workspace Begins Here



COLORBOND® steel takes Architectural Dreams to the Skies

The development of COLORBOND® steel with THERMATECH™ reflects Tata BlueScope Steel's enduring qualities: innovative, superior, cutting-edge and trend leading. With our THERMATECH™ Solar Reflectance Technology, we are helping in creating a future that is comfortable not just for people, but for the environment too. Combined with 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.

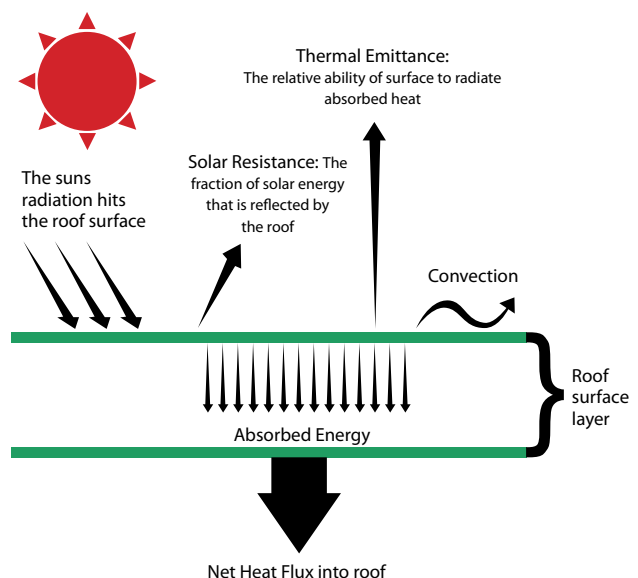
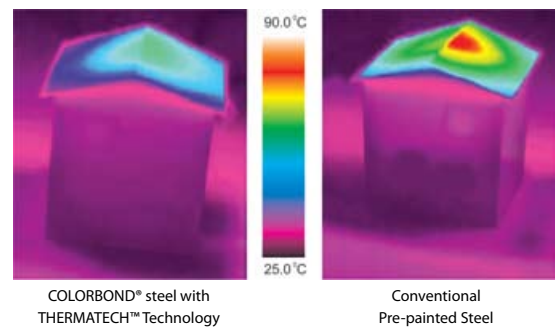


What is THERMATECH™ Solar Reflectance Technology?

- THERMATECH™ Solar Reflectance Technology is incorporated into COLORBOND® steel to lower temperature by absorbing less heat from the sun. COLORBOND® steel can reduce annual cooling energy consumption by up to 15%* and also reduces peak roof temperature by up to 6°C**. In other words, THERMATECH™ is able to increase the Solar Reflectance Index (SRI) of roofing material.
- SRI is a numerical number of a constructed surface's ability to reflect solar heat. A standard black is 0 and a standard white is 100. Higher SRI values indicate a roof whose surface temperature is lower. The SRI is mostly a function of a solar reflectance. A building material with a high solar reflectance will probably also have a high SRI.
- THERMATECH™ technology optimizes the thermal performance of every colour in the standard COLORBOND® steel without changing their appearance and provides greater thermal comfort all-year round, whilst using less energy for air-conditioning and helps mitigate the Urban Heat Island (UHI) effect.

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

**Depending on the colour





Why THERMATECH™ Technology is important?

- Roofing is the key consideration when designing any home or workplace to be thermally efficient and is essential in mitigating the Urban Heat Island (UHI) effect.
- An increasing number of very hot days plus media and government focus on climate change have directed community attention the need for greater thermal efficiency and the fact that we live in a harsh climate.
- Green building rating tools such as Leadership in Energy and Environment Design (LEED) require materials with high SRI values for mitigating the (UHI) effect. COLORBOND® steel with THERMATECH™ technology is able to provide higher SRI values thus complying with the green building requirements.
- COLORBOND® steel has been one of SAARC's favourite building materials for more than two decades. Today, COLORBOND® steel with THERMATECH™ is keeping pace with the needs and concerns of architects, builders, developers and their customers.



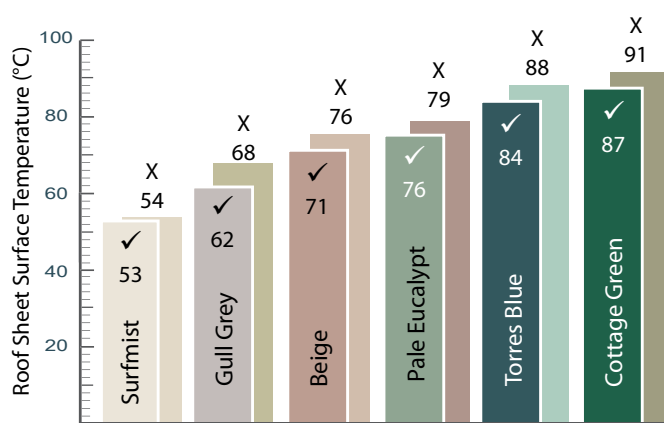
Lower Energy Consumption for the Same Comfort

- 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, COLORBOND® steel can reduce annual cooling energy consumption by up to 15 %*.
- COLORBOND® steel with THERMATECH™ technology reduces peak roof 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



Comparison of Roof Sheet Temperature* (Insulated)



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

* Assuming climatic conditions as under

Solar Radiation = 1000W/sq.m
Exterior Temperature = 36°C
Wind Speed = 0
Thermal Emittance = 0.85
Bulk Insulation = 100 mm

✓ - COLORBOND® steel

X - Standard pre-painted steel in similar colour



Reasons to believe in COLORBOND® steel

- Elegant colour, design versatility, lightweight strength and durability are just some of the features that have made COLORBOND® steel a favourite for architects, developers, builders, designers and the public alike.
- COLORBOND® steel with AZ150 coating (or other coating class such as AZ200) 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 upto four times the lifespan as compared to conventional Z275 galvanised coating.
- Now, with the inclusion of THERMATECH™ Solar Reflectance Technology, COLORBOND® steel gives the building industry even more than what it wants - a wider choice of thermally efficient colours and even greater durability because of reduced heat stress on the entire roofing system.
- When you choose COLORBOND® steel from Tata BlueScope Steel, you can rest be assured that we are around the corner. COLORBOND® steel is backed by a Tata BlueScope Steel Warranty*. With up to four times the lifespan of conventional pre-painted galvanised steel, you can be confident that COLORBOND® steel will keep your next project, and your reputation, looking good for years to come.

*Subject to terms and conditions



COLORBOND® steel colour chart

Choose from a range of attractive colours, that have been optimised to provide the best outcome, with regards to energy efficiency and durability with all the attributes expected from COLORBOND® steel.

COLORBOND® XRW steel and Ultra steel Series



COLORBOND® steel Spectrum Series



These colour shades are only for reference. Due to printing limitations, the colour shades may vary.

*Non-standard colours



Note:

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