

## COLORBOND® Steel

### Changing the Face of Infrastructure Landscape in India

**Innovation in steel building materials has enabled a wider scope for constructing challenging structures, given steel's improved strength, flexibility and durability, which is helping architects realise their design and creative dreams**

**M**ore and more construction companies in the Public Sector space are opting for smart technologies, advanced building materials and modern construction methodologies.

Innovation and use of steel in infra development is also contributing to the overall economic growth of the country, as infrastructure is a key driver for the Indian economy and growth. Highways, ports, metros, railways, and airports are all necessary conduits for commerce. Continuous improvement in construction and in the building materials used, is of extreme importance.

#### Why steel?

Infra projects are getting larger, riskier and more complex. In such an environment, delivering a project with better efficiencies and reliability; using environment-friendly,

sustainable building materials with greater thermal efficiencies, have become top priorities.

COLORBOND® steel from Tata BlueScope Steel Ltd is one of world's most advanced pre-painted steel products for the building and construction industry. It offers architects, designers, builders and owners a versatile, lightweight, strong and aesthetically pleasing solution for almost any type of built environment, especially infrastructure.

Introduced in 1966 by BlueScope Steel, Australia, COLORBOND® steel was developed specifically in response to the harsh climatic and weather conditions such as extreme temperature and moisture variations, and intense ultra violet radiation. It has been used in many of India's most iconic infra projects in the last ten years.

#### Railways and Metros

Metro is not only a commuter's delight, but also an example of modern day infrastructure, having raised the bar in design and architecture for public transportation. Tata BlueScope Steel Ltd has supplied more than 1600 MT of COLORBOND® steel for the roofing and as a building product for a majority of the Metro projects in the country.

Use of the best quality building materials that have adequate strength to endure contingencies like heavy rains, high uplift wind and vibrational loads etc., is the primary consideration in an Infrastructure project. Profiles made from high strength, corrosion-resistant, and tried and tested raw materials such as COLORBOND® steel and ZINCALUME® steel, are especially crafted for harsh weather conditions.

After using Galvanised steel for the first three stations, DMRC opted for Zinc and Aluminium alloy-based COLORBOND® steel, solely on the merit of its benefits. COLORBOND® steel in colours Surfmist, Pale Eucalypt, Sky Blue and Torres Blue were used to suit the specific ambient requirements of each station. The superior coating of Zinc Aluminium alloy and an efficient paint system ensures colour durability and a long life. This was the first instance where the common man in India witnessed colourful steel roofing being used for an infrastructure project like the Metro Rails.

#### Bus Stand, Community Halls and BRTS

A public utility space must ensure architectural appeal as it is seen as a landmark of the city. Performance with aesthetics is what COLORBOND® steel offers, where a monotonous structure transforms into an architecturally appealing piece of work.

A multi-utility public space, Valpoi Bus stand and Community Hall in Goa is one such example that combines beauty with power. A humble sheet of Al-Zn alloy metallic coating and long lasting COLORBOND® steel paint system transformed a traditional public utility space into an unconventional piece of art. The architect wanted a material that he could twist, taper, slice and angulate. ZINCALUME® steel was chosen to blend in the serene mountainous backdrop. This seemingly mundane project of a regular bus stand turned into a design marvel, demonstrating the creative capacity of the skilful architect, delivering something exceptional. Another example where COLORBOND® steel has transformed the face of a Public infrastructure is the BRTS Ahmedabad – a public transit service.

#### Airports

Profiles made from COLORBOND® steel are able to meet the most demanding construction and design requirements, while crafting roofs for outstanding performance and pleasing



BRTS Bus-Stop, Ahmedabad



Stadium with Lysaght Flexlok - Concealed Fixed Roofing System





Kolkata Metro, West Bengal

aesthetics. Moreover, the material also provides weather tightness and superior resistance to wind uplift, which is extremely critical for the hangars pitched near the runways. It is one of the only sheets, which, when installed, helps the structure become stable and structurally co-operative.

The DRDO Aircraft Hanger in Bangalore is made completely of COLORBOND® XRW Toba Blue colour. Both wall and roof comprised of over 50 MT of sheeting. The Chandigarh International Airport project made by PEB player Multi Infratech Pvt. Ltd. uses Surfmist of over 200 MT to meet the requirement of visual appeal and high performance.

### Stadiums

Shree Shiv Chhatrapati Sports Complex Stadium (nicknamed Balewadi Stadium); is the first-of-its-kind and unmistakably devoted to sporting excellence. It was specially built for the first Youth Commonwealth games hosted in India in 2008. Tata BlueScope Steel supplied colour coated steel for sheeting the entire façade and roof of the stadium.

While we witness the grandeur of many athletic performances, it is important to consider comfort of the crowds cheering within the stadium. COLORBOND® steel is incorporated with THERMATECH® Technology with high reflectivity that considerably reduces the temperature inside, making it comfortable for the occupants. Another iconic project, the Buddh International Circuit – a pioneer project in Indian Motor Racing in Greater Noida, is another example where colour coated cladding has given it a facelift, bringing it at par with international standards.

### Increasing Application

COLORBOND® steel undergoes rigorous corrosion and durability testing under actual conditions. Ideal for rugged applications and eco-friendly too, the material is most trusted in public utility spaces – the reason why it is being widely used in architectural and infra development projects across the country. **MGSA**



Valpoi Bus Stand & Community Hall, Goa