

STEEL IS THE MOST SUSTAINABLE

Q What is your view on sustainable building material?

A Every building has some direct and indirect impact on the environment. Buildings use raw materials, generate waste, and discharge harmful atmospheric emissions. These facts have prompted the need to use sustainable/green building materials to mitigate the impact on the environment. A sustainable building material should be one that can be reused and recycled, the most commonly used sustainable building material in the construction industry today is steel.

Q What is your outlook on Green Buildings?

A Typical conventional buildings tend to generate large amounts of waste during its construction and operation. Green buildings, on the other hand, seek to use land and energy efficiently. Every Greenfield project or Brownfield project could incline towards becoming a green building/sustainable building in two steps, firstly by using sustainable building materials like steel, geo synthetics, etc., and secondly, by using energy efficient technologies. In this regard, we have been able to provide sustainable solutions, especially in the infrastructure and industrial sector by supplying LYSAGHT® brand's metallic coated and color coated roofing and wall cladding sheets.

In fact, one of our international projects, The Melbourne Convention and Exhibition Centre (MCEC) has been nominated as the first convention centre in the world to have achieved a 6 Green Star rating in 2008. This recognition was accredited by the Green Building Council of Australia (GBCA) established in 2002, with an objective to develop a sustainable property industry in Australia and drive the adoption of green building practices through market-based solutions. The entire roofing solution

at the Melbourne Convention and Exhibition Centre, was provided with LYSAGHT® KLIP-LOK® 700 made of COLORBOND® Steel (with THERMATECH™ technology).

Q How does Green Star rating improve the environment?

A Green Star is an internationally recognized sustainability rating system. From individual buildings to entire communities, Green Star is transforming the way our built environment is designed, constructed and operated. Launched by the Green Building Council of Australia in 2003, Green Star is Australia's only national, voluntary, rating system for buildings and communities.

Our built environment is currently the world's single largest contributor to greenhouse gas emissions, and also consumes around a third of our water and generates 40 per cent of our waste. Green Star is helping to improve environmental efficiencies in our buildings, while boosting productivity, creating jobs and improving the health and wellbeing of our communities.

Green Star rating tools reward sustainability outcomes and encourage moving beyond standard practice. This means that Green Star - Design, As Built, Interiors and Communities projects can achieve a Green Star certification of 4 to 6 Green Star. Buildings assessed using the Green Star - performance rating tool can achieve a Green Star rating from 1 - 6 Star Green Star.

Q What various measures are being taken to save energy in the buildings?

A Some ways to save energy in buildings could be by using non-conventional building materials like steel sheets for roofing, polycarbonate sheets for day lighting

etc. Also, composite materials like sandwich panels for roofing and walling application can be used. New construction technologies like pre-engineered buildings, THERMATECH™ technology (from Tata BlueScope Steel) in metal roofing system can be adopted.

LYSAGHT® profiles made of COLORBOND® steel with THERMATECH™ is a solar reflectance technology that does not affect the appearance/aesthetics of the roof. It lowers surface temperature by absorbing lesser heat from the sun. In other words, COLORBOND® steel with THERMATECH™ technology is able to reflect more solar heat, thereby, keeping both roofs and buildings cooler inside. Reduced heat stress also means greater durability for entire roofing systems and superior ROI. Thus, THERMATECH™ solar reflectance technology ensures cool comfort, while reducing energy cost.

Q Which are the green products or projects and various green measures observed?

A Tata BlueScope Steel under its flagship LYSAGHT® brand has been providing superior green building products to the Indian construction industry. There are many green features that the LYSAGHT® range of products offer, specifically, lead free paint that enables the efficient usage of rain water system. These products are 100 per cent recyclable products, therefore, reduces usage of natural resources. Our profiles have high SRI values providing better indoor comfort; and the long spans of sheets allow overall reduction in wastage and usage of purlins.

Q What are the major challenges faced by Indian Green Building Movement? Could you please suggest few solutions?

A Some perceptions that are slowing down the Indian Green Building Movement are that buildings made from concrete are stronger and durable; green buildings use new technology, thereby, making them costly; conventional buildings cannot be converted into green buildings and the alike. These concerns are being addressed by Tata BlueScope Steel Ltd. through some of its offerings. The buildings made by using SMARTDEK® 51 decking system along with CEE-Plus™ & ZED-Plus™ purlins are equally strong and durable with added advantages like design flexibility and faster construction. The products offered under LYSAGHT® brand use best-in-class paint system, and are manufactured from precision engineered equipments resulting into overall cost savings. Retrofitting jobs involving re-roofing of complete premises has been successfully carried out in numerous projects using profiles like KLIP-LOK® 700.

Q Considering the current resource shortages how do we introduce sustainable building models in the metros?

A LYSAGHT® brand has introduced ready-to-use kind of products like SMARTDEK® 51 decking system, which is beneficial for casting of multiple slabs together; use of CEE-Plus™ & ZED-Plus™ purlins against conventional angle sections; use of THERMATECH™ embedded technology in roofing and wall cladding sheets like TRIMDEK® 1015, BR-II™ 900 etc. The usage of these products on commercial and infrastructure projects will help in establishing a sustainable building model.

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