



Delivering Excellence with Assured Performance

LYSAGHT®
Global Excellence since 1857

Where

Tata Steel, Kalinganagar, Odisha

What

LYSAGHT® supplied over 12 lakhs sq.mts. (6000 MTS) of Metal Sheeting (LYSAGHT TRIDEK®) for a 12 MTPA fully integrated steel plant with engineering and construction support and best in class Safety Practices.

Purpose

Roof and wall cladding and other building products for TATA Steel's Greenfield project at Kalinganagar, Odisha.

Background:

Known for its customer centric offerings with a legacy that dates back over 150 years; LYSAGHT® was an ideal choice for quality solutions, operational excellence and

on-time delivery promise. The project witnessed many challenges right from its inception.

Extreme weather conditions, unavailability of trained workforce, interdependency on other contractors, on-site safety conditions etc. added to the overall difficulty in executing the project.

TATA Steel choose LYSAGHT® for design and engineering support apart from supply and installation of colour coated metal profiles for a facility spread across 3,500 acres.

Tata Steel's main requirement was on-time project delivery with Best Safety Practices.

Project Requirements, Challenges and Solutions

Solutions that could be trusted

Challenge

Extreme climatic conditions such as heat, rain, thunder and storm required profiles that could endure wind pressures, are corrosion resistant and come with long lasting performance and are maintenance free.

Solution

LYSAGHT TRIMDEK® with its strength and long spanning capabilities, ideal for industrial applications, was recommended. Its specially designed ribs, with unique anti-capillary side lap, makes it a 100% leak proof roof. All LYSAGHT® profiles are made of high strength light weight COLORBOND® steel that ensure durability with aesthetics and are corrosion-resistant.

Skilled Work Force Availability & Resource Mobilisation

Challenge

Locally deployed resources lacked required expertise. Commitment was a challenge due to complexity of task. Moreover, dependability on other structural vendors lead to uncertain resource mobilisation on short notice.

Solution

Appointing local bodies, training them on new installation techniques along with world class safety practices added value. With onsite medical check-ups, rehydration solutions, PPE, permit to work, Toolbox meetings, first aid facility etc. ensured worker engagement and commitment.



In recognition of its contribution in the field of Health, Safety and Environment; LYSAGHT® received the CIDC Vishwakarma Award for Construction Health, Safety and Environment for Tata Steel's KPO project.

Daunting Heights & Extreme Weather Conditions

Challenge

Handling and hoisting sheets at 80 Mts. Height required extreme engineering. Summers made it worse with the temperature touching over 50 degree Celsius. Frequent wind lashes with a maximum speed of 180kms/Hr made it impossible to handle sheets at that height, with greater damaging potential.

Solution

To address safety concerns at daunting heights; skywebs made of internationally acclaimed DuPont Nylon were permanently installed to provide full protection.

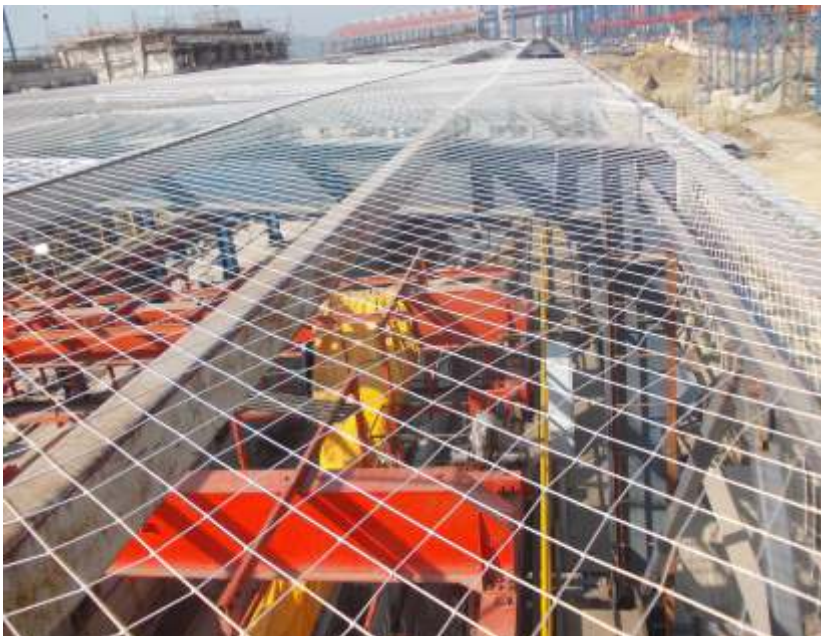
Improved design for hanging scaffolding with 3 point anchorage, in addition to hand rail and a safety net coverage, provided additional security.

Replacement of 12mm PP rope by 12mm wire rope for lifeline added extra strength. Life Line Anchorage Clips were introduced for improving the harness strength. To address heat; work was discontinued from 11:00 am to 03:30 am.

Since wind load was ~ 180km/hr on buildings with a height of more than 80 meters, special cyclonic washers were used which help the structure to remain stable even in extreme environment conditions.

Moreover on-site training programs such as "Unsafe Working Conditions" and "Unsafe Acts" provided constant refresher to ensure behavioural change towards safety processes.

The project has survived two major cyclonic conditions: Phailin (wind speed 260 km/h) and Hudhud (200 km/h). During all adverse conditions, the safety deployment has been very stringent and till date 1 Million man-hours of LTI/ MTI free work has been completed.



Conclusion

Tata Steel's Kalinganagar Project is an example of sheer team work and collaboration from several experts involved such design, engineering and erection. Understanding customer's requirement with constant coordination inspite of all odds, LYSAGHT® was able to deliver the project on time adhering to all safety guidelines. This strengthened the trust, helping the brand bag more projects of future expansion!

As a management commitment towards Safety, Business Leaders Safety Coaching Program is conducted for Senior Managers. The training is imparted by very experienced and competent Safety Leaders from Parent company, BlueScope, Australia.

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“The job has been executed within the stipulated completion date to our satisfaction, adhering to all safety guidelines. We appreciate the installation service provided by TBSL team.”

- Chief RMHS & Logistics Tata Steel, Kalinganagar

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