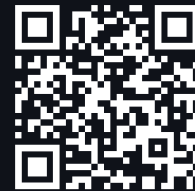
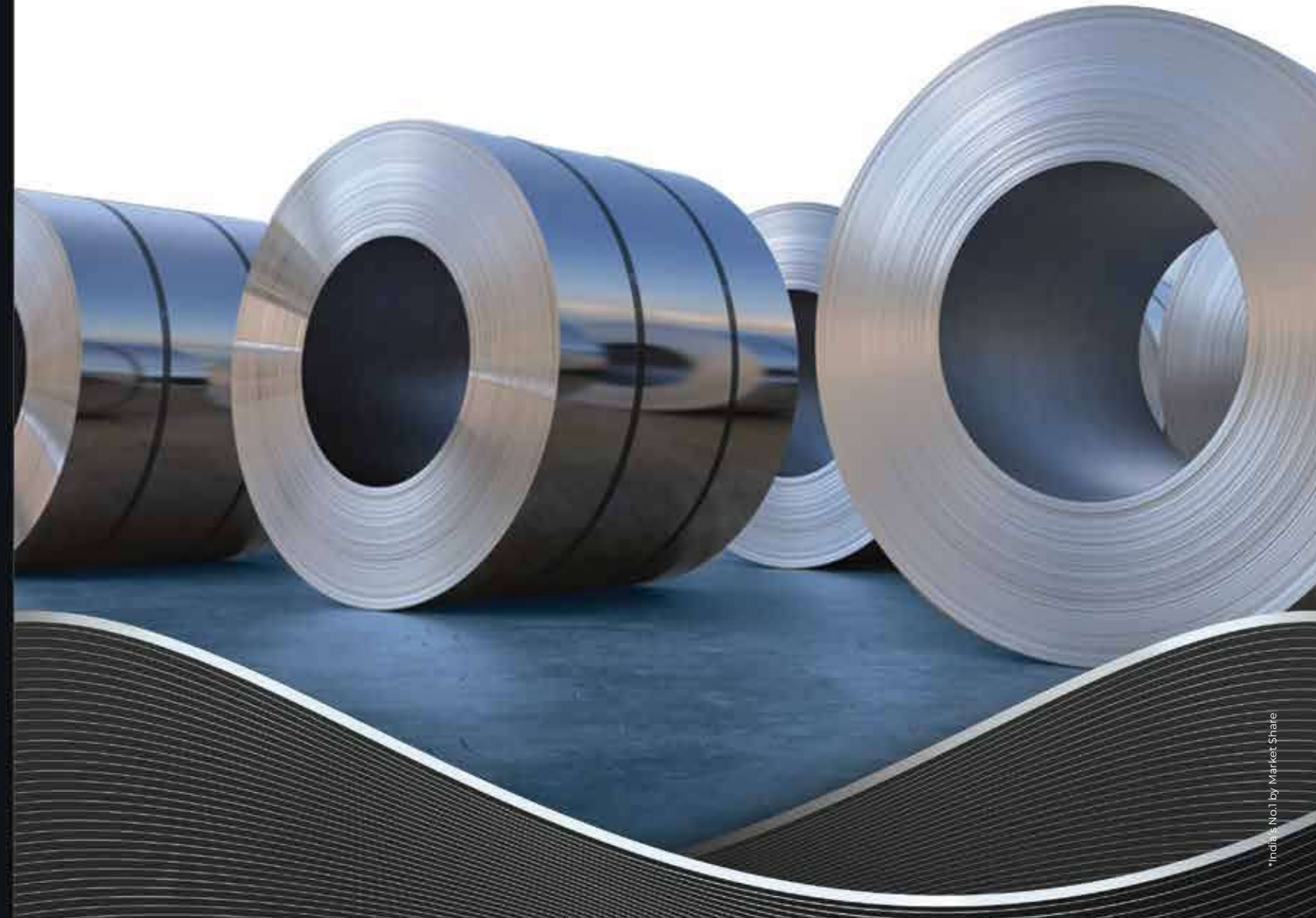




# RADIANT RESILIENCE

FOR UNMATCHED SHINE AND STRENGTH



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## ABOUT APL APOLLO

Welcome to APL APOLLO, where innovation, excellence, and reliability converge to redefine the steel industry. As a premier manufacturer and supplier of high-quality steel products, we take pride in our commitment to pushing boundaries and setting new standards in the industry.

APL Apollo Tubes Limited is the largest producer of Structural Steel Tubes in India.

### Our Legacy of Excellence:

With a legacy spanning over a decade, APL APOLLO has emerged as a global leader in the production of structural steel tubes. Our unwavering dedication to quality and customer satisfaction has propelled us to the forefront of the industry, earning us recognition as one of the largest players worldwide.

### Innovative Capacity Investment:

We believe in investing in the future. Through consistent investment in our manufacturing capacities, we have positioned ourselves as pioneers in the industry. Our strategic approach to capacity creation ensures a balanced manufacturing infrastructure across regions, enabling us to meet demand with precision and efficiency.

### Pioneering Technology Adoption:

At APL APOLLO, innovation is ingrained in our DNA. For the past two decades, we have been at the forefront of bringing cutting-edge technology to India's shores. From groundbreaking manufacturing processes to state-of-the-art machinery, we continuously push boundaries to create new products and markets.

### Expansive Product Portfolio:

Our commitment to innovation is reflected in our expansive product portfolio, comprising over 2,000 SKUs. From structural tubes to hollow sections, pre-galvanized tubes to precision tubes, we offer a diverse range of products that cater to a multitude of applications and sectors.

3.6 MT  
Steel Products

30  
Countries Across  
the Globe

11  
Manufacturing  
Units



### Robust Distribution Network:

We understand the importance of accessibility. That's why we have developed the largest and most expansive distribution network in the industry. Supported by robust supply chain solutions, our multi-layer network ensures that our products are readily available across India.

### Driving Trade Transformation:

We are not content with just meeting benchmarks; we strive to set them. By providing innovative products, rapid delivery, and growth opportunities to our channel partners, we have revolutionized trade practices within the industry.

### A Commitment to Innovation:

Innovation is at the heart of everything we do. We remain steadfast in our commitment to developing innovative solutions that address evolving customer needs and deliver increased value. Our cutting-edge facility near Raipur is a testament to this commitment, where we manufacture value-added products that are firsts for the Indian markets.



## SUSTAINABILITY IS AT THE CORE OF APL APOLLO

Our environmental management is not a strategy but a philosophy embedded in the substrata of the enterprise, it allows us to reduce our carbon footprint and also inspires our customers meet their own environmental management aspiration.

### PRODUCTS:

We are the first and pioneering Company to innovate readymade Chaukhat, Fence, Plank, and Hand rails under Steel for Green concept which replaced conventional wood applications in building construction. Our product saves approximately 250,000 trees every year.

### ENERGY:

Our total renewable energy stood at 49,618 MW, which is 38% of APL Apollo's total energy consumption. To achieve its near-term emissions reduction targets, APL Apollo plans to increase the use of renewable energy. At two of APL Apollo's plants (in Malur, Karnataka and Hosur, Tamil Nadu), over 85% of energy needs were met through renewable energy.

### GREEN COVER:

We have planted 5,000 plants on 3.1 acres of government-provided land in Gendupur Village, Sikandrabad, close to our AMPL (A25/Plot 22) and APL A19 manufacturing plants. Furthermore, we have undertaken a large number of plantation activities in our plants at

APL Apollo Building Products Private Limited (ABPL). For the plantation of thick, natural mini-forests, we have adapted the Miyawaki technique pioneered by the Japanese botanist Akira Miyawaki. The method will result in ten times faster plant growth and a plantation that is 30 times denser than typical.

### WATER:

Over the years, we have persevered to optimise water consumption at our facilities by strengthening our shop-floor processes. Our patient efforts have yielded heartening results. Over the last three years (FY20-FY23), our total water consumption declined by 9% YoY despite a 30% jump in production. Our two facilities at Murbad and Malur are Zero-Liquid Discharge certified. To rejuvenate the groundwater table, we have created rainwater harvesting pits of around 353 cubic meters.

MEMBER OF  
**Dow Jones**  
**Sustainability Indices**  
In Collaboration with RobecoSAM



## DJSI FY2023 SCORE

APL APOLLO TUBES  
**STANDS AT 86<sup>TH</sup>**  
PERCENTILE

(IN THE PEER INDUSTRY COMPRISING OF GLOBAL COMPANIES)

**SCORE REACHED A HIGH OF  
40 POINTS, ABOVE THE INDUSTRY AVERAGE OF 24**

### IMPROVEMENT ACROSS AREAS



**Social  
Dimension**



**Governance &  
Economic Dimension**



**Environmental  
Dimension**

# OUR PLANT

## The Raipur Facility: Driving Innovation and Sustainable Growth

### Manufacturing Plant Overview:

APL Apollo's manufacturing facility located at Simga, Raipur spans across a vast 600-acre landscape, our facility stands as a testament to our commitment to excellence in the manufacturing of steel tubes and building products.

With a current annual capacity of 1 million tons and additional expansion capabilities of 0.3 million tons, our facility is equipped to meet the growing demands of various industries.

### Our facility boasts a range of groundbreaking product innovations, including:



India's first 20mm HR Slitting Line



Introduction of 1000 x 1000mm Structure Tubes, a pioneering feat in India and globally.



Launch of India's first 500 x 500mm Structure Tube Section



Implementation of India's first Thicker Colour Coating Line, offering superior coating thickness ranging from 1.60mm to 2.50mm

### Our operations prioritize environmental sustainability, with features such as:

- A Zero Discharge Plant, ensuring minimal environmental impact.
- Implementation of an Acid Regeneration Plant, promoting eco-friendly practices.






## ABOUT GLITZ

Glitz is APL Apollo's tribute to the ever-changing pattern of steel demand. It is environmentally safe and economically advantageous. With Glitz, we have redefined quality and raised the bar of strength, durability, performance and versatility.

In the world of high GP thickness, we offer Normal Spangle/Suppressed or Crushed Spangle Galvanised Plain (GP) steel in the country. Glitz stands out with unmatched surface finish and mechanical properties with capabilities to meet the stringent quality requirements of customers.

A high level of corrosion resistance, superior flatness, and an excellent surface suitable for painting are a few attributes that characterize our coated products. This product can be used in a wide variety of applications.

### RUST UNDERCUTS SCRATCHED PAINT

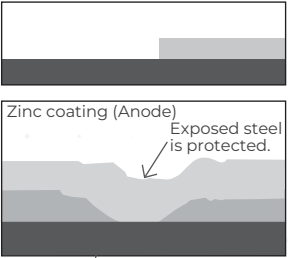


The diagram consists of two cross-sectional views of a metal surface with a yellow paint layer. The top view shows a flat surface with a horizontal scratch. The bottom view shows the same surface after some time; the paint has been scratched away, and a dark brown, irregular mass of rust has formed in the gap, causing the paint to lift and form a blister on either side of the scratch.

Paint on non-galvanised steel

This is what happens at a scratch on painted non-galvanised steel. The exposed steel corrodes and forms a pocket of rust. Because rust is much more voluminous than steel, the pocket swells. This lifts the paint film from the metal surface to form a blister. Both the corrosion pit and the blister continue to grow.

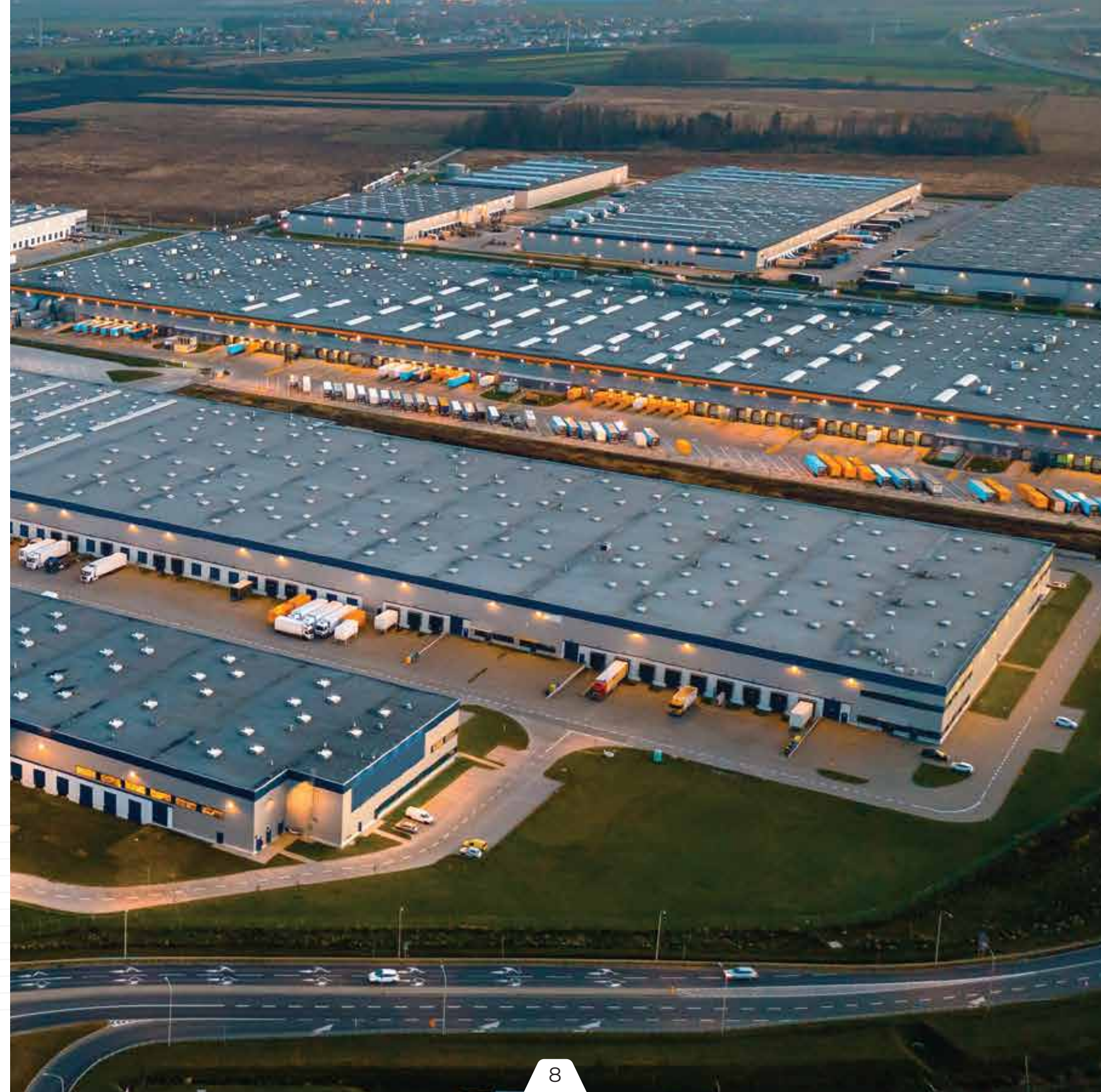
### ZINC PROTECTS BASE STEEL, EVEN WHEN SCRATCHED



The diagram shows a cross-section of a metal surface with a grey zinc coating layer on top of a darker steel base. A scratch is shown in the zinc coating. Labels include 'Zinc coating (Anode)' pointing to the top layer, 'Exposed steel is protected.' pointing to the area where the zinc coating is missing, and 'Steel base (Cathode)' pointing to the bottom layer. An arrow points upwards from the steel base towards the scratch area.

Galvanised steel

This is what happens at a scratch on galvanised steel. The zinc coating sacrifices itself slowly by galvanic action to protect the base steel. This sacrificial action continues as long as any zinc remains in the immediate area. Bare galvanised steel and painted galvanised steel are the best answers to corrosion.





## THE GLITZ ADVANTAGE



**Excellent Surface Finish & Flatness:** The Galvanized steel coil's shiny and spangled appearance, elevates aesthetics and functionality with flawless finish and precise flatness.



**Superior Paint Adhesion:** Achieve long-lasting color and surface protection with the superior paint adhesion.



**Uniform & Superior Zinc Adhesion:** Uniform and superior zinc adhesion in Glitz prevents zinc peel-off & crazing (pebbly surface) during fabrication, thereby ensuring end-product durability & finish. Uniform zinc coating is possible through Feed-Forward X-ray mechanism in Continuous Galvanising Line.



**Consistent Thickness:** Glitz comes in uniform and close tolerance of thickness which ensures higher yield in end applications – meaning more number of parts per kg compared to ordinary Galvanised products.

| Thickness Tolerance*                |                   |
|-------------------------------------|-------------------|
| Thickness/Allowable Tolerance/Width | Width upto 750 mm |
| 1.50mm to 2.00mm                    | ± 0.04            |
| 2.01mm to 2.50mm                    | ± 0.05            |
| 2.51mm to 2.80mm                    | ± 0.06            |

\*On nominal thickness measured at 10 mm from the edge



**Optimum Formability & Excellent Draw Ability:** Glitz is made from steel substrate made through close control of chemical composition and having best mechanical properties – the key for forming applications. Optimize manufacturing efficiency with the smooth airflow properties.



**Eco-Friendly:** Choose sustainability without compromising performance with our environmentally friendly steel solutions.



**Enhanced Corrosion Resistance:** Boost infrastructure longevity and reduce maintenance expenses with zinc-coated steel, effectively warding off corrosion for prolonged durability.

| Company | Chromated             |                     | Thin Organic Coated   |                     |
|---------|-----------------------|---------------------|-----------------------|---------------------|
|         | White Rust Resistance | Red Rust Resistance | White Rust Resistance | Red Rust Resistance |
| ABPL    | 100-120 hrs           | 500-700hrs          | 500-550hrs            | 800-900hrs          |
| Others  | 60-100 hrs            | 400-600 hrs         |                       |                     |

\*Based on 275 gsm coating as per ASTM B117 and post treatment of Thin Organic Coated

## WELDABILITY

Welding on Glitz is done almost by the same welding processes done for bare steel, but with minor changes in voltage, amperage, travel speed, etc. Common welding tips are Spot welding & GMAW welding

## GLITZ COIL QUALITY TESTING

Glitz, our premier product, prioritizes quality assurance above all else. The rigorous testing procedures, focusing on flexibility and coating adhesion, demonstrate our dedication to excellence. Bend tests, conducted meticulously according to material specifications, evaluate the zinc coating's adhesion. Additionally, impact and cupping tests are systematically performed on every product to ensure consistent and robust adhesion across our range. These stringent quality control measures reflect our commitment to delivering products of unmatched quality and durability.



## PRODUCT CHARACTERISTICS

|                    |            |                |
|--------------------|------------|----------------|
| <b>Dimensions:</b> | Thickness: | 1.50 – 2.80 mm |
|                    | Width:     | 100-750 mm     |
|                    | Inner dia: | 508 mm         |
|                    | Outer dia: | 1900 mm max    |
|                    | Weight:    | 15 tons max    |

**Grades:** G300 / G350 / G450

**Surface Condition:** Galvanized Normal Spangled/Suppressed or Crushed Spangle

**Coating Mass:** Galvanised : Z80 / Z120 / Z180 / Z275 (total both sides)

**Post Treatment:** Chromated/Thin organic coated (CR\*3/CR\*6)

## TECHNICAL SPECIFICATIONS

|                                 |   |
|---------------------------------|---|
| <b>Brand Name</b>               | Glitz   |
| <b>Product Name</b>             | Hot Dipped Galvanized Steel Sheets in Coil form |
| <b>Reference Standard</b>       | IS 277  |
| <b>Thickness Range (TCT) mm</b> | 1.50 to 2.80                                    |
| <b>Width Range (mm)</b>         | 100 to 750                                      |
| <b>Zinc Coating Grade (GSM)</b> | <b>Z 80 to Z 275</b>                            |

| Properties of Steel Base (Other steel base possible on agreement) |                              |               |               |           |
|---|------------------------------|---------------|---------------|-----------|
| Element   | Chemical Composition (% max) |               |               |           |
|   | GP300                        | GP350 Class-1 | GP350 Class-2 | GP450     |
| Carbon (C)  | 0.25                         | 0.25          | 0.25          | 0.2       |
| Manganese (Mn)  | 1.35                         | 1.5           | 1.5           | 1.35      |
| Phosphorus (P)  | 0.05                         | 0.05          | 0.05          | 0.04      |
| Sulphur (S)   | 0.035                        | 0.035         | 0.035         | 0.03      |
| Aluminium (Al)  | 0.02-0.07                    | 0.02-0.07     | 0.02-0.07     | 0.02-0.07 |

### Available Dimension Range & Tolerances

| Base Metal Thickness (mm)               |  | Width (mm) |           |
|---|--|------------|-----------|
| Thickness Range                         | Tolerances   | Range      | Tolerance |
| 1.50 - 2.80                             | ± 0.06   | 100-750    | +2/-0     |
| <b>Surface Treatment</b>                | <b>Chromic acid</b> (ideally even coatings of 20 to 40 mg/m <sup>2</sup> total on both sides) is normally applied to all galvanised material |            |           |
| <b>Video Jet Printing</b>               | APL APOLLO GLITZ/MPA/GSM/MM  |            |           |
| <b>Spangle Type</b>                     | Regular Spangle /Normal Spangle/Suppressed or Crushed Spangle  |            |           |
| <b>Coated Surface</b>                   | Bright Metallic Appearance   |            |           |
| <b>Flexibility and Coating Adhesion</b> | Bend tests as per IS 277   |            |           |
| <b>Properties</b>                       | Providing a barrier between the steel and the environment through galvanic protection  |            |           |
| <b>Applications</b>                     | Widely used in PEB, Structural Steel, Cladding, Purlin and Colour Coating  |            |           |

### Mechanical Property

| Material Grade | Tensile Test    |                  | Bend Test (Mandrel Diameter 180°) |                          |
|----------------|-----------------|------------------|-----------------------------------|--------------------------|
|                | YS (Mpa)<br>Min | UTS (Mpa)<br>Min | (%) El @<br>GL-50 mm*             | Thickness<br>t > 1.25 mm |
| YS 300         | 300             | 400              | 20                                | 3t                       |
| YS 350 Class 1 | 350             | 420              | 13                                | 3t                       |
| YS 350 Class 2 | 350             | -                | 13                                | 4t                       |
| YS 450         | 450             | 480              | 9                                 | 4t                       |



# APPLICATIONS

PURLINS



C CHANNELS



COOLING TOWER



SOLAR HEATING PANEL



CRASH BARRIER





GENERAL APPLIANCES



AGRICULTURAL EQUIPMENT



HEATING PLATES



ELECTRICAL AND LIGHT FITTINGS

