

TATA STEEL

 WeAlsoMakeTomorrow



Introducing
Galvanova



HARNESS
the Power of Endurance

PUT THE POWER OF ENDURANCE WITHIN YOUR REACH

This new generation steel brings lasting endurance through superior corrosion resistance backed by superior heat reflectivity. It meets the mandate for new generation steel products that reduce environmental impact and meet market needs swiftly and efficiently.



LASTING VALUE SHINES THROUGH

Tata Steel Galvanova is a 55% Al Zn alloy coated steel produced from Tata Steel plant. This new age steel with unique coating structure is 2-4 times more corrosion resistant, as compared to galvanised steel. The presence of aluminium ensures that the surface is impervious to imperfections and scratches. As a result it is truly unbeatable when it comes to endurance.



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Tata Steel Ltd.

Tata Steel Ltd. is a leading player in the steel industry, manufacturing hot rolled, cold rolled, galvanized, galume and colour coated products. The mill capabilities of Tata Steel, have always been very advanced; producing quality products across plants and serving a plethora of segments.

Tata Steel is known for being customer centric. Post acquisition of Bhushan Steel Ltd. by Tata Steel Limited, the synergy between both the companies has resulted in excellent quality, flexibility and reliability in all its products and services. Tata Steel has its manufacturing units in three locations – Meramandali (Odisha), Sahibabad (UP) and Khopoli (Maharashtra).



MANUFACTURING FACILITIES



SAHIBABAD

At the Sahibabad plant of Tata Steel in Ghaziabad, Uttar Pradesh, it has a 1700 mm mill, which produces the widest sheets in India for the automotive industry. It has highly automated systems.



KHOPOLI

The second unit of Tata Steel started at Khopoli, Maharashtra, with narrow and wide CRM, tube and power plans. This plant of Tata Steel in Maharashtra was commissioned in 2004 and has been producing colour coated sheets, high-tensile steel strappings hardened and tempered steel strips for the first time in India, along with CRCA steel to cater to the needs of the automobile industry.



Meramandali, DHENKANAL

Tata Steel has made a name for itself in the list of top suppliers of Steel & Stainless Steel Products, Components and Coils in India. The supplier company is located in Meramandali, Dhenkanal, Odisha, and is one of the leading sellers of listed products.

TATA STEEL'S COATED PRODUCT OFFERINGS



Zero Spangled Galvanized Plain Product (Galvano)

GalvaRoS



Galvanized Plain Regular Spangle (GPRS)

Galvanova



55% Al Zn Alloy Coated Steel (Aluminium Zinc Coated Steel)

Colornova



Color Coated Steel (Pre-painted Galvanized)

Tata Steel Coated Products* add values such as strength, durability, versatility and elegant aesthetics to every spectrum of applications in which they are used.

*GalvaRoS, Galvanova and Colornova produced from Tata Steel Plant.

 Galvano
Value Redefined
Coated Products from Tata Steel



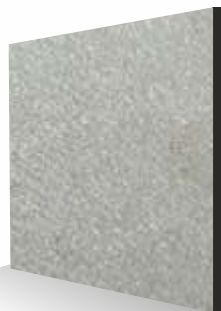
Galvano –
Zero Spangled
Galvanized
Plain Product

 GalvaRoS



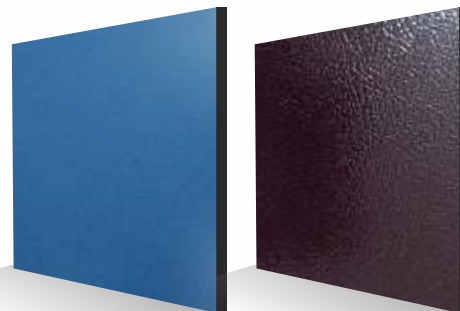
GPRS –
Galvanized Plain
Regular Spangle

 Galvanova



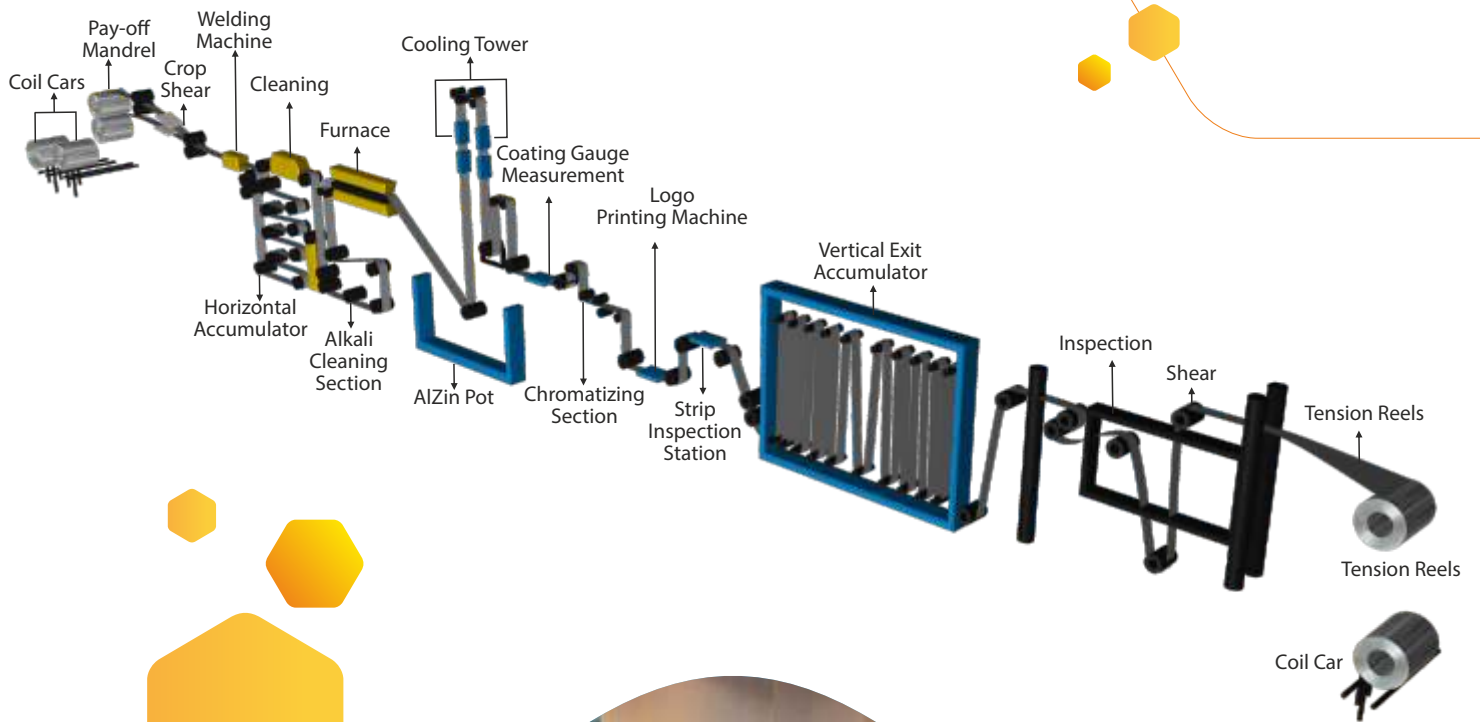
Galvanova –
Aluminium
Zinc Coating

 Colornova



PPGI –
Pre Painted Galvanized

PROCESS FLOW OF A GALVANISING LINE





This product combines the Superior Barrier protection of Aluminum and the Sacrificial protection of Zinc in one product. At 55% Al, 43.5% Zn and 1.5% Si alloy, the best combination of Barrier and Sacrificial protection is obtained.

Reference Standards IS 15061-2018	Other Standards ASTM 792M, AS1397 etc.	Substrate IS513, ASTM568M and AS1365
Coil Inner Diameter 508 mm		Coil Weight Max 12 MT



Mechanical Properties

Grade	GSM	Thickness Range (mm)	Width Range (mm)	Yield Strength (MPa)		UTS (Mpa)		Min Elongation	Hardness (HRB) (max)	Secondary Passivation (YES/NO)		
				Min	Max	Min	Max			Acrylic coating	Oiling	Chromated
YS 300	AZ70-150	0.20-1.20	900-1250	300	–	340	–	20	58-65	YES	NO	YES
YS 550	AZ70-150	0.26-1.20	900 -1220	550	–	550	–	–	85 -100	YES	NO	YES
YS 250	AZ70-150	0.25-1.20	900-1250	250	–	320	–	25	65 Max	YES	NO	YES
YS 240	AZ100-150	0.30 -1.00	700-1100	140	240	–	350	36	50	YES	NO	YES
YS 340	AZ70-150	0.40-1.20	900-1220	350	–	–	–	12	66 -75	YES	NO	YES

Thickness Tolerance

Thickness/Width	Width <1000 mm	Width >=1000, <1250mm
0.30 mm to 0.49 mm	±0.025	±0.03
0.50 mm to 0.59 mm	±0.025	±0.03
0.60 mm to 0.79 mm	±0.03	±0.04
0.80 mm to 0.99 mm	±0.03	±0.04
1.00 mm to 1.2 mm	±0.03	±0.04

Width Tolerance

Width Tolerance	
Width Tolerance - Min	0 mm
Width Tolerance - Max	5 mm

Edge Condition Tolerance

Edge Condition	Trimmed Edge
Edge wavy coils	3 mm, 3 waves / metre
Edge wavy sheets	4 mm, 2 waves / metre
Edge Camber	2 mm max. In 2 metre length

Surface Quality

Surface Quality	
Surface Treatment	Acrylic Coating / Chromated Cr3 / Cr6
Oiling	Uncoiled
Coil Weight	4-12 MT
Cold Treatment	Skin Passed / Without skin Passed
Edge Treatment	Mill / Trimmed Edge

SPECTRUM OF APPLICATIONS

GALVANOVA WHICH IS COATED STEEL WITH ALUMINUM ZINC ALLOY



Refrigerator
and washing
machine



HVAC



Panel



Solar

Range of Appliances



Panels



HVAC



Solar

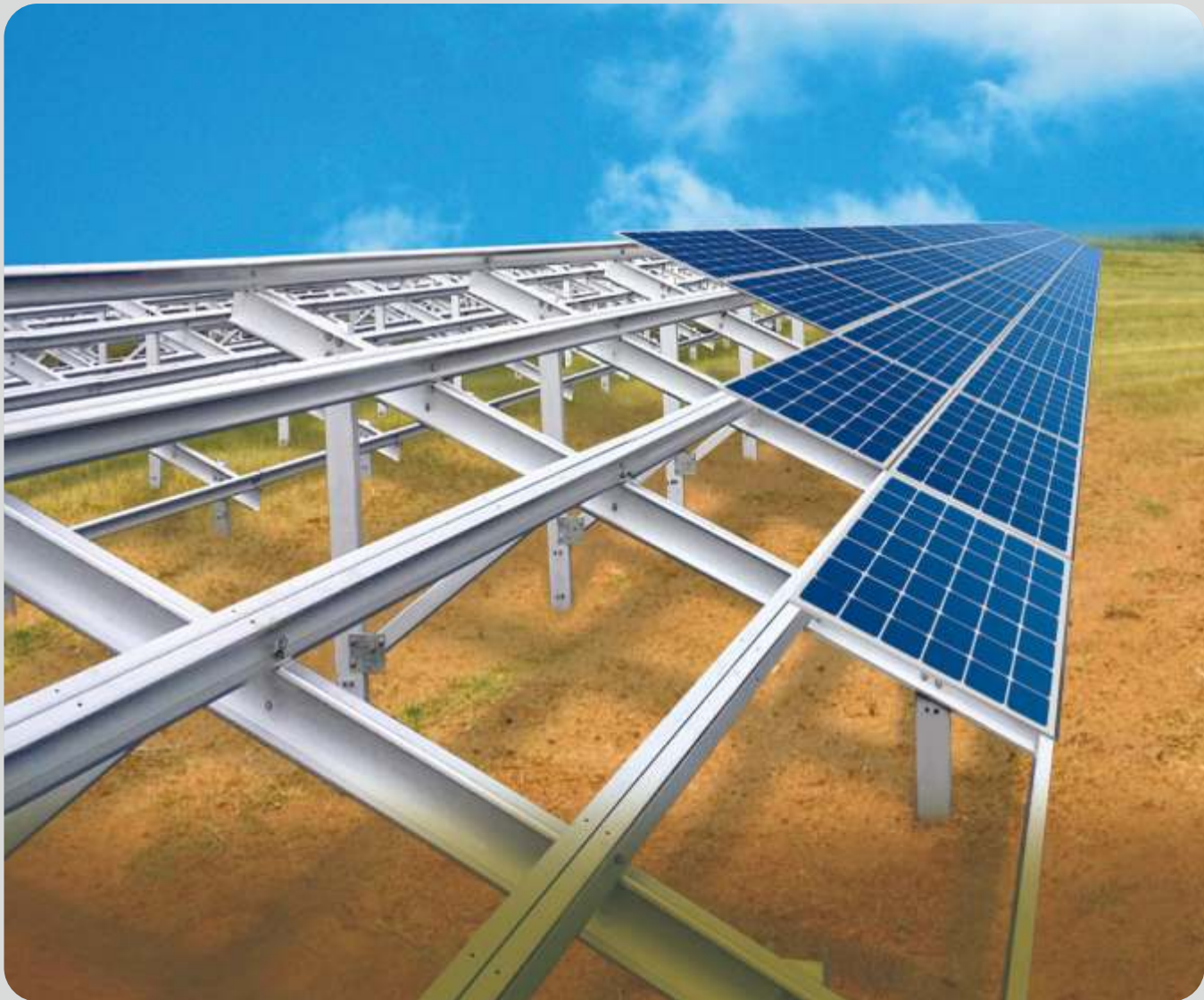


OVERVIEW OF SOLAR

Solar energy is the cleanest and most abundant renewable energy source available and India has some of the richest solar resources in the world. Solar technologies can harness this energy for a variety of uses, including generating electricity, providing light or a comfortable interior environment, and heating water for domestic, commercial, or industrial use. Solar photovoltaics power can effectively be harnessed providing huge scalability in India.

Solar Specifications

Grade	IS 15961 2016	GSM	Thickness (BMT, mm)	Width (mm)	YS (Mpa) Min	UTS (Mpa) Min	%EI (50 mm GL)
HSQ	YS350	AZ70-150	0.40-1.20	900-1220	350	–	12
CQ	YS550	AZ70-150	0.26-1.2	900-1220	550	500	



ADVANTAGES OF GALVANOVA



**Superior
Corrosion
Resistance**



**Better
Yield**



**Superior
Paintability**



**Superior
Scratch
Protection**



**Anti
Fingerprint**



**Environment
Friendly**



**Enhanced
Heat-resistance
property**



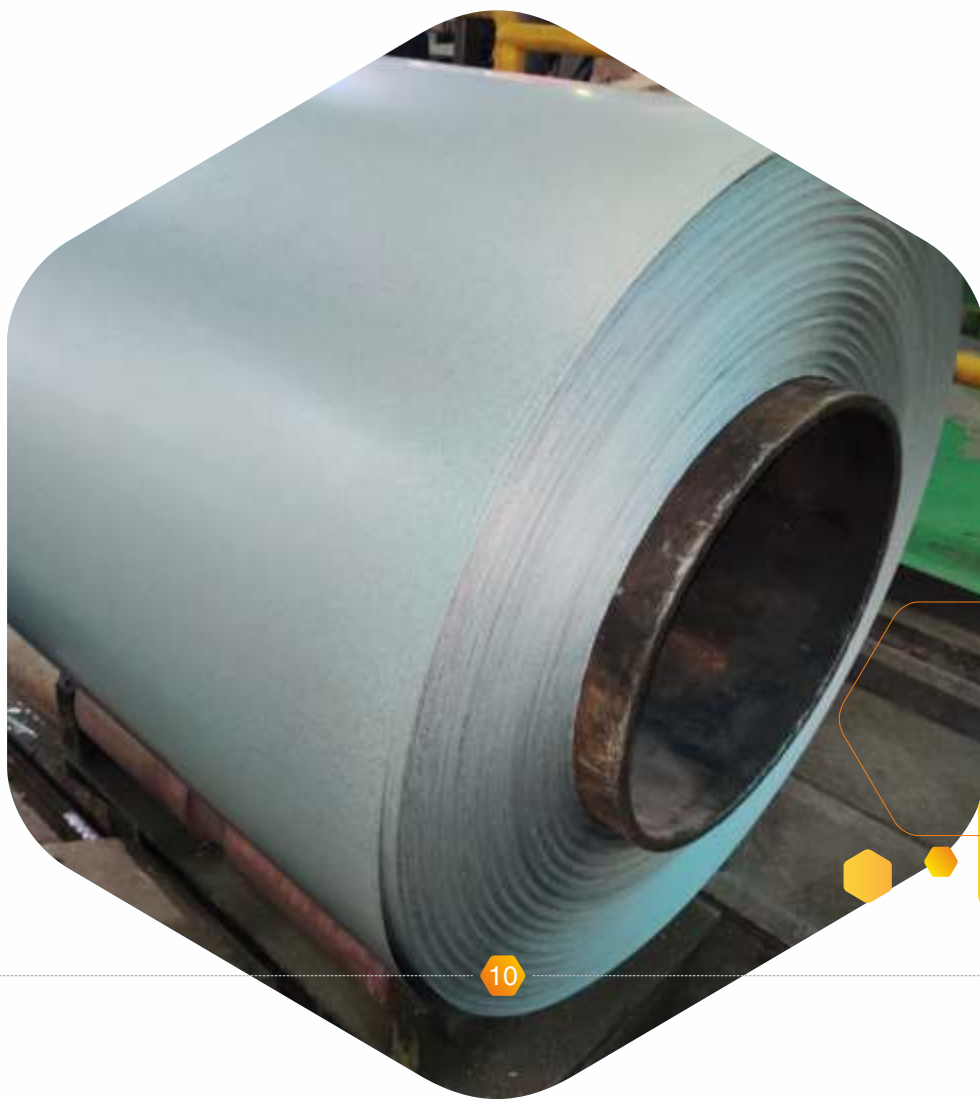
Authenticity
Brand name printed
using UV Inkjet
printing



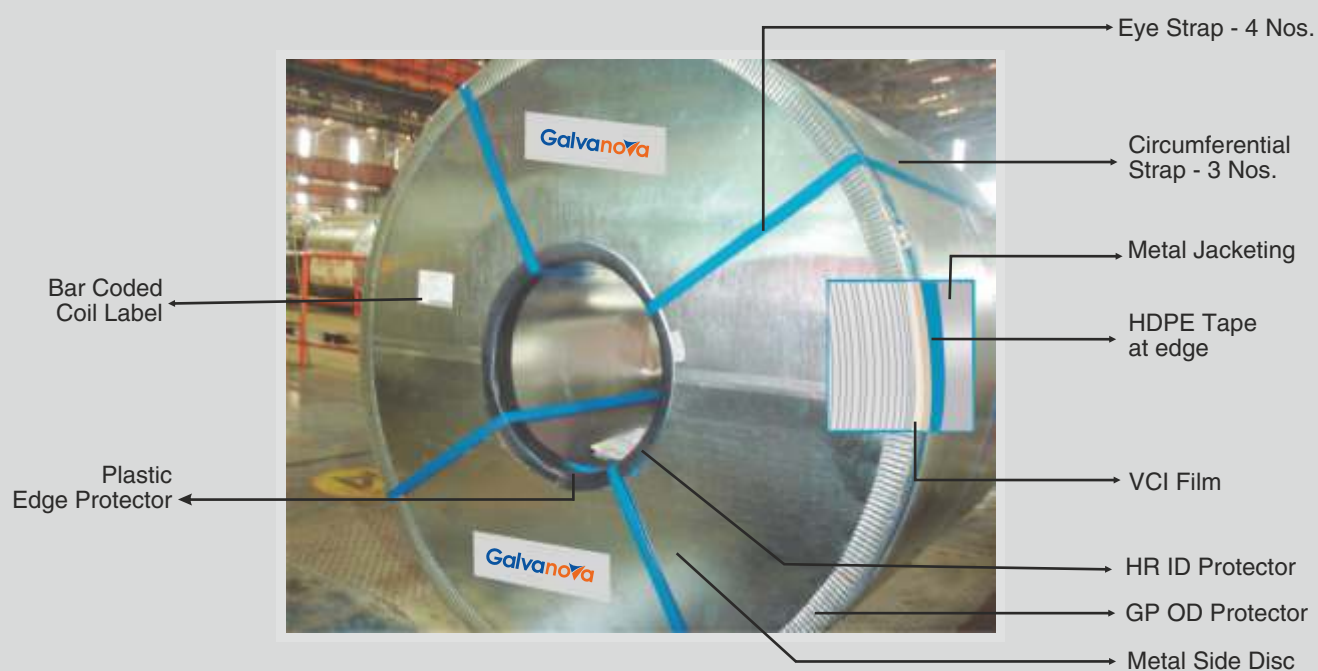
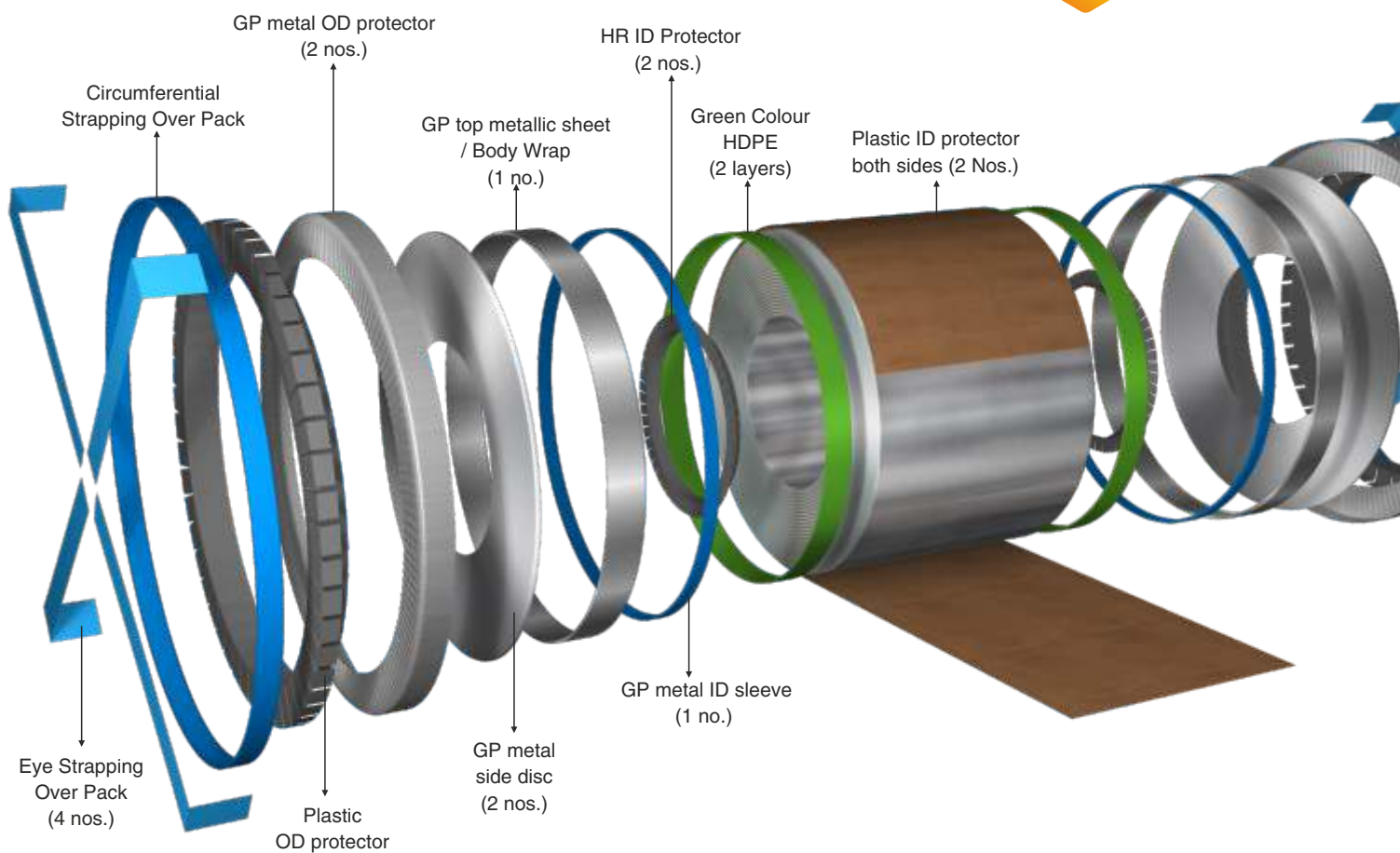
**Superior
Packaging**



**Superior Metal
Finish and
Formability**
Grades' availability



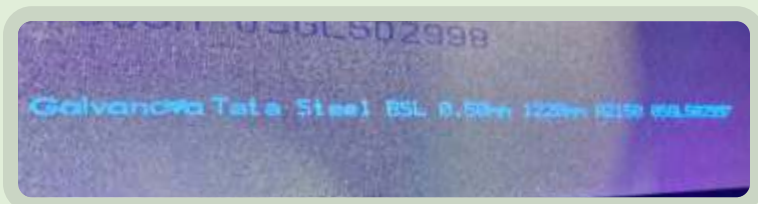
GALVANOA PRODUCT PACKAGING





PRODUCT AUTHENTICATION

Brand name marked with UV Inkjet printing not visible to the naked eyes. Each coil/bundle has a label carrying the consignment & material details. It ensures proper identification and traceability.



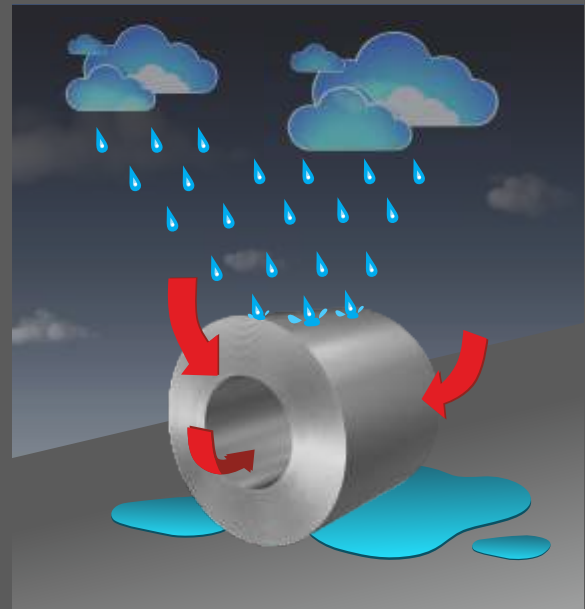
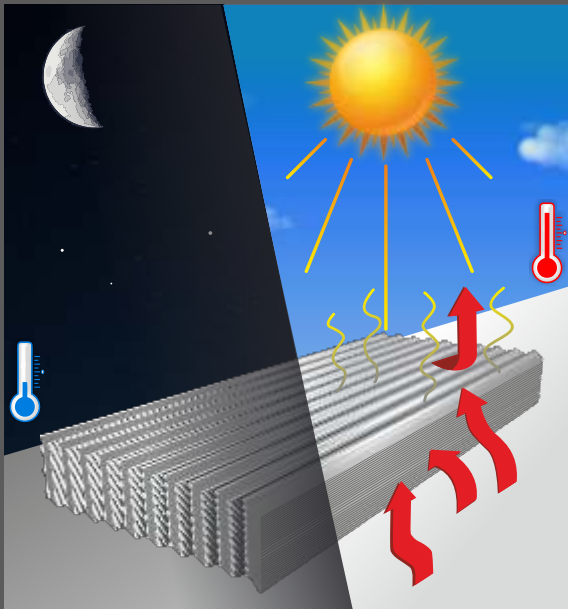
				
CUSTOMER			LOGO OF SERVICE PARTNER	
LOCATION			XYZ LIMITED 30B, LAKE ROAD, FARIDABAD 121001 Ph 0129 4098200	
COIL NO.				
PACKET NO.				
	THICKNESS	WIDTH	LENGTH	Authorised Signatory
SIZE				
TDC				
GRADE				
NET WEIGHT				
GROSS WEIGHT				
NO OF SHEETS				

STORAGE INSTRUCTIONS

STORING INSTRUCTIONS

1. Keep the material in dry and well ventilated condition (Indoor)
2. After receiving, ensure the coils and sheets are dry.
3. If found wet, open the pack immediately, separate & wipe the sheets/coils with a clean dry cloth and stack them to allow air to circulate and help in keeping material in prime condition.
4. Avoid contact with wet concrete.
5. Store off the ground in a sloped manner to drain water.
6. Do not leave uncovered stacks of sheets/coils lying in the open.
7. Do not allow water / moisture to get entrapped in the bundles / coils
8. Use only dry untreated timber for block stacking
9. For outside storage, erect simple scaffolding and cover bundles / coils with loose fitting tarpaulin or water proof sheet while allowing air to circulate.
10. Inspect the storage site regularly to ensure that moisture has not penetrated into the stack.
11. Do not keep the coils near the protruded portions of objects to avoid damage.

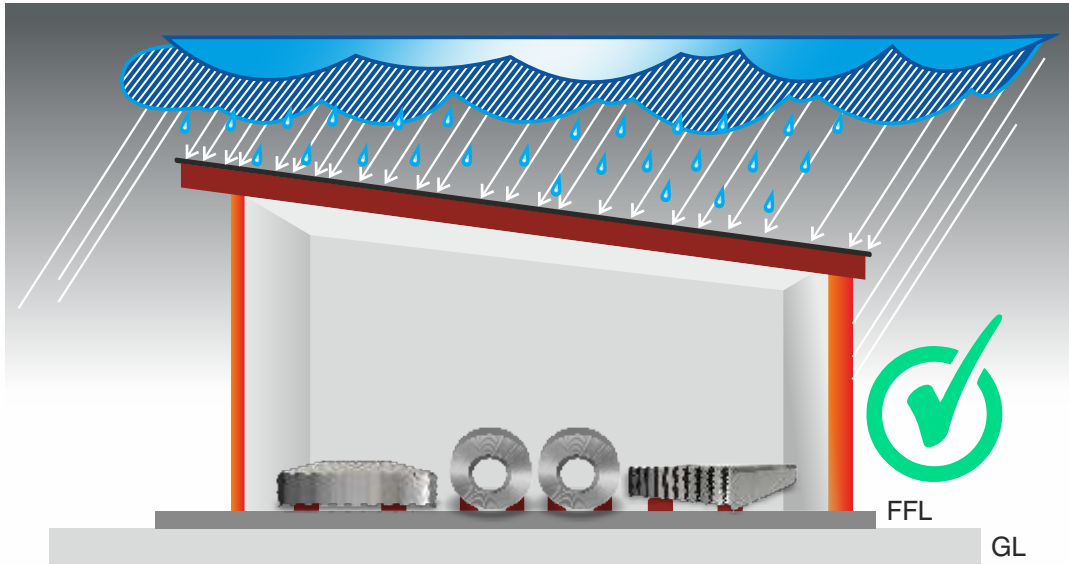
WRONG METHOD OF STORAGE



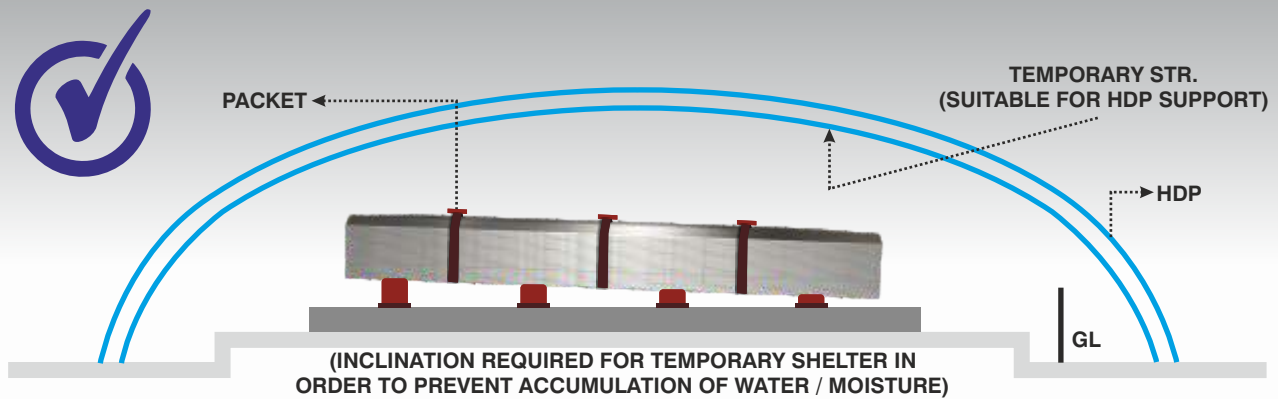
MOISTURE MAY GET ENTRAPPED



CORRECT METHOD OF STORAGE



ALTERNATE CORRECT METHOD OF STORAGE



(INCLINATION REQUIRED FOR TEMPORARY SHELTER IN ORDER TO PREVENT ACCUMULATION OF WATER / MOISTURE)
ON RAISED PLATFORM COVERED WITH HIGH DENSITY POLYETHYLENE COVER SO THAT WATER / MOISTURE DOES NOT ENTER THE BUNDLE

PRODUCT GUARANTEE NORMS

55% AL ZN ALLOY COATED PRODUCT GUARANTEES (Galvanova)

Product Parameters	Grades					
	D	EDD	240	300	Sh340 Semi-hard	550 Mpa
Guarantee of Mechanical properties (months)	1	6	2	2	2	NA
Guarantee of stretcher strains (months)	-	NA	-	NA	NA	NA
Guarantee against white rust and storage stains for chromated (in months)	3	3	3	3	3	3
Guarantee against oiling coverage, yellowish patches, pin rust (months)	NA	NA	NA	NA	NA	NA
Guarantee against "crazing" for 100 GSM coating	2	2	2	2	2	2
Guarantee against "crazing" for 150 GSM coating	2	2	2	2	2	2
Guarantee of surface defects on one surface	✓	✓	✓	✓	✓	✓
Yield loss at coil ends due to conversion from coil to Blanks #	1.5 % of the length of the coil					

Notes: The time starts with the date of delivery of the coil to the customer

Needs specific discussion and agreement with customers

55% AL ZN ALLOY COATED PRODUCT GUARANTEES (Galvanova Skin Passed)

Product Parameters	Grades					
	D	EDD	240	300	SH340 Semi hard	550 Mpa
Guarantee of mechanical properties (months)	1	6	2	2	2	NA
Guarantee of stretcher strains (months)	2	NA	2	2	2	NA
Guarantee against white rust and storage stains for chromated (in months)	2	2	2	2	2	2
Guarantee against oiling coverage, yellowish patches, pin rust (months)	NA	NA	NA	NA	NA	NA
Guarantee against "crazing" for 100 GSM coating	2	2	2	2	2	2
Guarantee against "crazing" for 150 GSM coating	2	2	2	2	2	2
Guarantee of surface defects on one surface	✓	✓	✓	✓	✓	✓
Yield loss at coil ends due to conversion from coil to Blanks #	1.5 % of the length of the coil					

Notes: The time starts with the date of delivery of the coil to the customer

Needs specific discussion and agreement with customers

TRANSPORTATION NORMS

1	Packing of coils/sheets should be carried out in a dry area
2	Wet coils should be scheduled for production as soon as possible
3	Do not store in areas with fluctuating temperatures such as in open or in high humidity areas
4	If the sheets/packets are not to be used the same day then keep them wrapped in proper packaging material. This is necessary as the moisture enters the sheets through capillary reaction
5	Do not use plastic material. Non-breathing materials tend to trap the moisture
6	Store the bundles on racks at least one foot above the ground level. Do not use uncured lumber
7	Elevate one end of the bundle to allow moisture to run off rather than puddle on the top of the bundle
8	Avoid scratches/abrasion. Surfaces abraded by hard-soled shoes or objects sliding over the surface give a darkened coating. This should be avoided
9	Oily hands can put impressions on the sheets. Clean gloves should be used while handling the sheets
10	If sheets are darkened then they can be cleaned with mild detergent or Alkaline cleaners and then thoroughly rinsed and dried
11	During fastening the packets and coils on a truck, use the belts or rubber pieces in between the material and the chains to avoid edge damage
12	The coils should be dispatched in an Eye Vertical/ Eye horizontal position. Else there will be fretting corrosion on the surface and that will make the sheets unsightly
13	We should assess the facility of unloading at the users' places.



TATA STEEL'S RESEARCH LABORATORY & TESTING FACILITY

Tata Steel's in-house quality control laboratory is fully equipped with the latest testing equipment. Dedicated chemists ensure conformance to specifications on every coil and and documentation of all test records.



Metallurgical Microscope

A metallurgical microscope refers to a high power microscope used for the purposes of viewing opaque objects (objects through which light cannot pass) these types of microscopes are different from the typical biological microscopes in that they use the principle of reflected light microscopy.



Computerized UTM Tensile Testing Machine

In a simple tensile test, a sample is typically pulled to its breaking point to determine the ultimate tensile strength of the material. As they pull materials apart, ADMET testing machines accurately calculate mechanical properties such as tensile strength, peak load, elongation, tensile modulus, and yield.



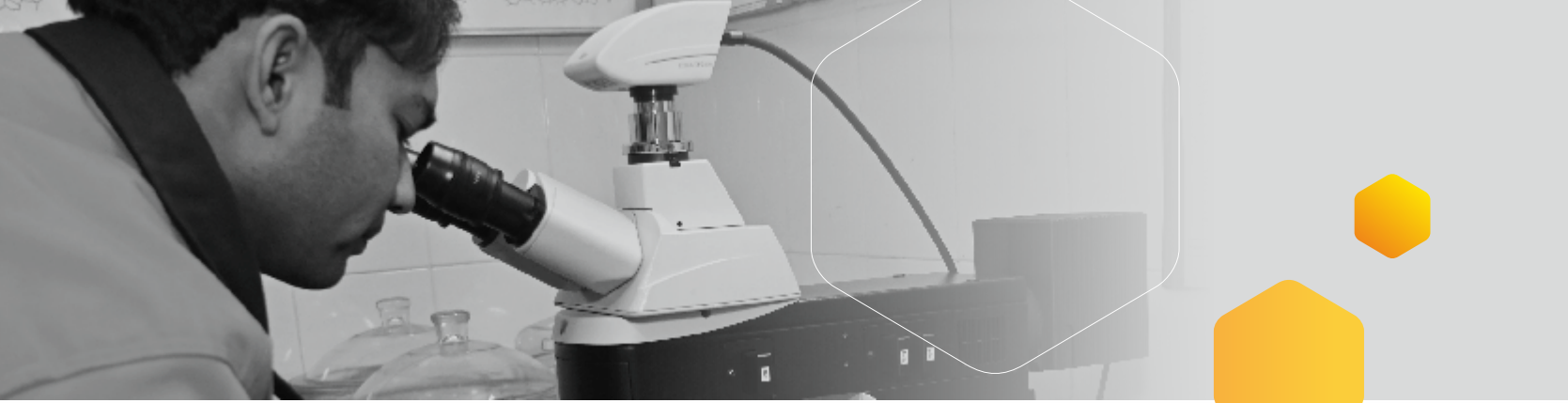
Salt Spray Tester

The salt spray test is a standardized and popular corrosion test method, used to check corrosion resistance of materials and surface coatings.



Hardness Tester

A Hardness Tester is a device that indicates the hardness of a material, usually by measuring the effect on its surface of a localized penetration by a standardized rounded or pointed indenter of diamond, carbide, or hard steel.



Cold Bend Test

The Cold Bend Test is conducted according to IEC 60811-504 and is designed to assess the performance of electrical cables at low temperatures. The test must be carried out on samples of insulation and sheathing material, no more than 16 hours after the extrusion or cross-linking process has been carried out.



Bend Test

The bend test is a simple and inexpensive qualitative test that can be used to evaluate both the ductility and soundness of a material. It is often used as a quality control test for butt-welded joints, having the advantage of simplicity of both test piece and equipment.



Surface Grinder

A surface grinder is a machine tool used to provide precision ground surfaces, either to a critical size or for the surface finish. The typical precision of a surface grinder depends on the type and usage, however ± 0.002 mm (± 0.0001 in) should be achievable with most surface grinders.



Vertical Milling Machine

In vertical mills, the spindle axis is vertically oriented. Vertical turret mills have a stationary spindle and the table is moved both perpendicular and parallel to the spindle axis to execute cutting. They often have a quill that allows the milling cutter to be raised and lowered in a manner quite like a drill press.



NETWORK OF ACE⁺⁺ SERVICE CENTRES*

DISTRIBUTOR	LOCATION	SERVICE CENTRE
NORTH ZONE		
Bhagwati Steel Processor	Chandigarh	ACE ⁺⁺
G R Gupta & Bros	Ghaziabad	ACE ⁺⁺
Mangla Sons	Mohali	ACE ⁺⁺
R S Steel	Ghaziabad	ACE ⁺⁺
TSPDL Uttarakhand	Pantnagar	ACE ⁺⁺
EAST ZONE		
Bubna Commercial Private Limited	Hooghly	ACE ⁺⁺
Sagar Steels	Guwahati	ACE ⁺⁺
WEST ZONE		
ANM Ispat Pvt Ltd	Ahmedabad	ACE ⁺⁺
Naresh Steel Industries Pvt Ltd	Mumbai	ACE ⁺⁺
Rohit & Company - Ahmedabad	Ahmedabad	ACE ⁺⁺
SKM Galva (A div. of SKM Steels Ltd.)	Mumbai	ACE ⁺⁺
SKM Indore	Indore	ACE ⁺⁺
TSPDL Pune	Pune	ACE ⁺⁺
SOUTH ZONE		
GK Steel	Bengaluru	ACE ⁺⁺
Govindaraja Mudaliar Sons (P) Ltd	Chennai	ACE ⁺⁺
Kummenchery Steels	Cochin	ACE ⁺⁺
Ramsaroop & Sons	Bengaluru	ACE ⁺⁺
Shiva Ferric Private Limited	Bengaluru	ACE ⁺⁺
Shree Sai Krishna Steels	Secunderabad	ACE ⁺⁺

ACE⁺⁺ * Distributor Owned Service Centre





Tata Steel coated products meet the diverse needs of its customers through strong channels of distributors and through a service centres.

With ACE⁺⁺, it has taken its service capabilities to the next level and set a benchmark in the industry. This is a service centre development programme, a first in the steel industry, to enhance capability to deliver excellence in product and service customisation across a network of service centres. Each authorised service centre is equipped with state-of-the-art facilities and processes for world-class handling, storage and processing to deliver on the highest parameters of quality and minimise wastage.

SALES OFFICES

North Zone

Delhi

Tata Steel Limited
15th Floor, Hindustan Times Building, New Delhi 110 001
Phone: 011-66248500
Tata Steel Limited
Ground Floor, Plot 1&2, Mira Corporate Suites, Mathura Road
New Delhi, India

Ghaziabad

Tata Steel Limited
Plot No. 1227-1229, GT Road, Lalkuan, Ghaziabad 201 001
Phone: 0120-2866780

Faridabad

Tata Steel Limited
2nd Floor, Business Centre 33-B NIT, Faridabad 121001
Phone: 0129-4098321

Chandigarh

Tata Steel Limited
SCO -16, 1st Floor, Sector 26, Madhya Marg, Chandigarh 160 019
Phone: 0172-2791047/2790932

Kanpur

Tata Steel Limited
16/97, Navroz Building, The Mall, Kanpur 208 001
Phone: 0512-2316605

Ludhiana

Tata Steel Limited
C/44-47, Phase II, near Majestic Auto,
Punjab, Ludhiana 141 010, Phone: 0161-5022805

Jaipur

Tata Steel Limited
D -34, Subhash Marg, Near Agrasen, Circle, Jaipur 302 001
Phone: 0141-2225244

East Zone

Kolkata

Tata Steel Limited
43, Jawaharlal Nehru Road, Kolkata 700 071
Phone: 033-22821778/22281348
Tata Steel Limited
Jasmine Towers, 31, Shakespeare Sarani Road,
Mullick Bazar, Park Street, West Bengal, Kolkata - 700017

Bhubaneswar

Tata Steel Limited
Marketing & Sales, 2 - B, Fortune Tower, Chandrasekharpur
Odisha, Bhubaneswar 751023, Phone: 0674-6651007

Jamshedpur

Tata Steel Limited
Opposite Chummary Guest House
B Road East, Northern town, Bistupur, Jamshedpur 831001
Phone: 0657-6500511

Guwahati

Tata Steel Limited
Guwahati Sales Office
4th floor, Subham Velocity, Honuram Boro Path, Opp. Wallford
G S Road, Guwahati 781005, Phone: 0361-2130959

Patna

Tata Steel Limited
4th Floor, Orchid Mall, Opposite AN College, Boring Road
Patna 800 001, Phone: 0612-2570094.95/96

West Zone

Mumbai

Tata Steel Limited
3rd Floor, One Forbes 1, Dr V B Gandhi Marg
Fort Mumbai 400001, Phone: 022 67494600

Ahmedabad

Tata Steel Limited
2nd Floor, Premchand House Annexe, P.O. Box No. 4096,
Ashram Road, Old High Court Way Ahmedabad 380 009
Phone: 798012306

Indore

Tata Steel Limited
3rd Floor, NRK Business Park, Block B -1, PU-4,
Scheme No. 54 Vijay Nagar Square, A B Road Indore 452010, MP
Phone: 0731-6450688/691

Nagpur

Tata Steel Limited
Museum Road, Civil Lines Nagpur 440 001
Phone: 0712-2520170/2533209

Pune

Tata Steel Limited
Office Nos. 6 & 7, Second floor Wing B,
Great Eastern Plaza (Bajaj Allianz Building)
Airport Road, Pune 411001, Phone: 020 66407580

Raipur

Tata Steel Limited
Office No-539, 5th Floor Magneto Office, Raipur 492001

Khopoli

Tata Steel Limited
At- I Po-Khalapur, Via- Savroli, Dist- Raigad 410203
Maharashtra, India

South Zone

Chennai

Tata Steel Limited
8th Floor, Chettinad Sigapi Achi Building
18/3 - Rukmini Lakshmi Pathy Road (Behind Air India Office)
Egmore, Chennai 600 008, Phone: 044-66960024
Tata Steel Limited
(Formerly known as BHUSHAN STEEL LIMITED)
No.190, Unit-1, 3rd Floor, Mount Chambers, Anna Salai
Chennai - 600 002, Tamil Nadu, India

Bengaluru

Tata Steel Limited
A Wing, 2nd Floor, Jubilee Building, 45, Museum Road,
Bengaluru 560 025, Phone: 080-66950001

Hyderabad

Tata Steel Limited
6th Floor, Gummidelli Towers 1-10-39 to 44,
Begumpet Airport Road, Hyderabad, Telangana 500016
Phone: 040-67040300
Tata Steel Limited
305, Purni Plaza, Khairatabad, Hyderabad - 500004
Telangana, India

Kochi

Tata Steel Limited
Santha Nivas, Door No. 41/3393, Manaikkapadi Lane,
PRA No. 52, Padivattom Edappally (Post), Kochi - 682 024

Coimbatore

Tata Steel Limited
No:6, New Damunagar, Pulaikulam, Coimbatore-641036

Customer helpline **1800 108 8282** (toll free)



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NOTES



A series of horizontal lines for writing, divided into two sections by a large, light yellow, rounded rectangular shape on the left side. The top section consists of 10 lines, and the bottom section consists of 20 lines.

TATA STEEL

 WeAlsoMakeTomorrow

Tata Steel Limited, Tata Centre, 43, Jawaharlal Nehru Road,
Kolkata-700 071

Customer helpline 1800 108 8282 (toll free)