

A decorative graphic element consisting of several parallel blue lines that curve upwards and to the right, located behind the company name.

**NATIONAL STEEL
AND AGRO INDUSTRIES LTD.**
Certified ISO 9001 : 2000

T H E S H I N E O F S U C C E S S



At NSAIL, we all share a focused vision. A single minded approach to produce finest quality of Steel in the form of GP/GC Sheets / Coils and to maintain premium brand position through customer satisfaction.

National Steel and Agro Industries Ltd. (NSAIL), over the years, has blossomed into a front-ranking manufacturer of top quality galvanised coil & sheets and cold rolled products in India. NSAIL – an ISO 9001:2000 certified company and a member of Ruchi group is now one of the top Industrial Houses in the country.

Since inception, we have banked on technology, standards and systems that are at par with world levels, which enables us to achieve quality, that not only satisfies international standards but surpasses, to create benchmark for the industry. The expertise of our qualified and dedicated personnel has been, the key factor in realising this goal.

NSAIL, enjoys the status of a 'Trading House' in exports. With consistent major export achievements, its wide range of products command premium in global and domestic market as well.

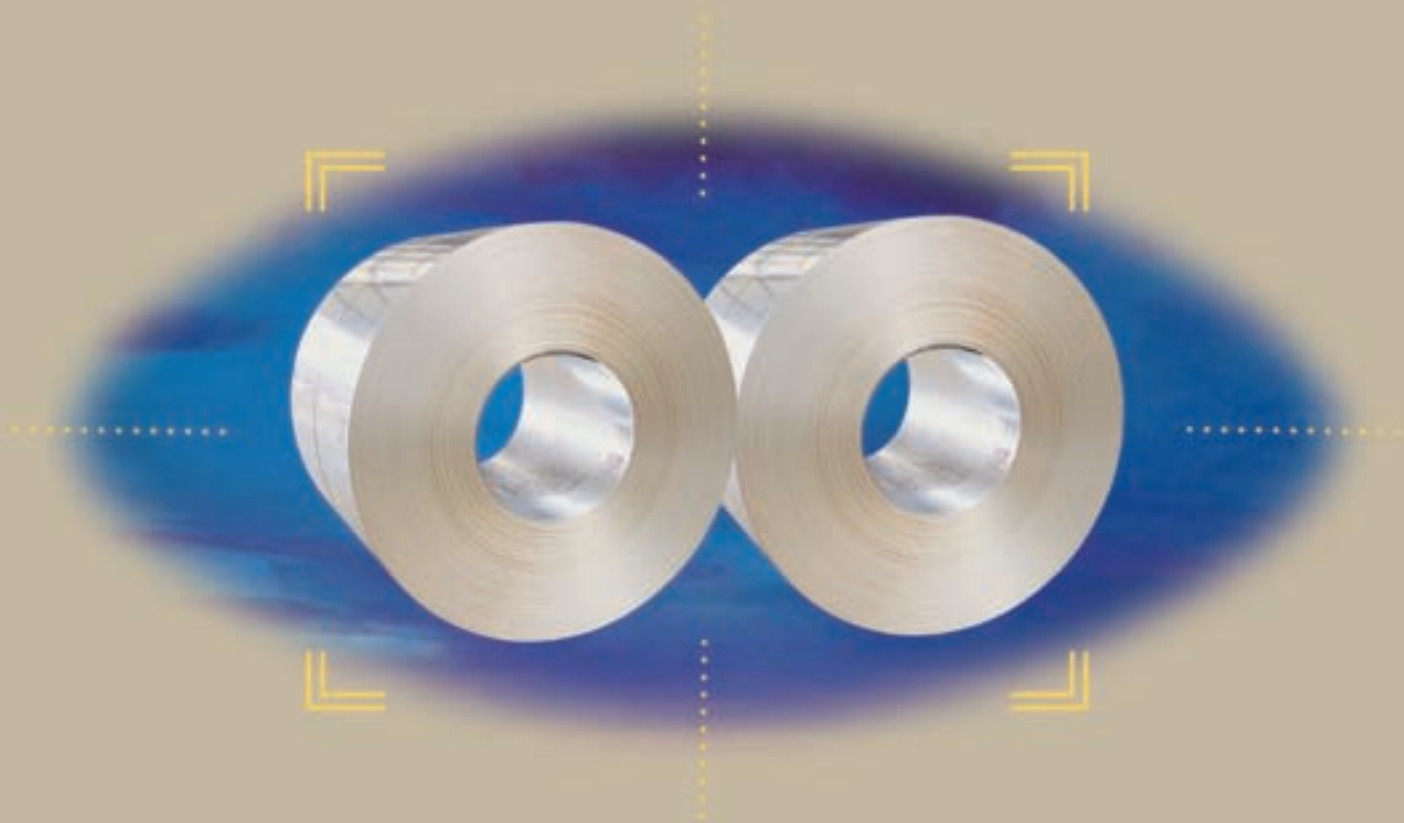
Endeavouring for the best quality and excellence will always remain our guiding doctrine. Through continuous performance evaluation and upgradation we are determined to stay ahead in the competitive globalisation scenario.

The mission is set.

Santosh Shahra

Managing Director





S U C C E S S T H R O U G H
S I N G L E S H A R E D V I S I O N

Quality Steel.

INCEPTION

Pioneering spirit. A clear vision of the future. A commitment to achievement. From such a combination evolved the National Steel and Agro Industries Ltd. (NSAIL), an integral part of a large group that has to its credit two success stories - the prestigious, Ruchi Soya Industries Ltd. and the General Foods Ltd. In the highly competitive field of galvanised steel, NSAIL stands out with a superior product range.

In keeping with the latest international trend in Continuous Steel Strip Galvanising Technology, National Steel's most modern plant at Indore (M.P.) has been set up in technical collaboration with three world leaders, CMI, Belgium; Stein Hurty, France and Phenix Works, Belgium. Moreover both CMI & Phenix Works, under a technical agreement, will continuously update the plant with the latest innovation in galvanising.

NSAIL started its commercial production in November 1987 with a capacity of 35,000 MT per annum through its single production line. Technological upgradation of this line and the addition of a new Continuous Galvanising Line in 1999 have enhanced the production capacity to 280,000 MT per annum.

As part of backward intergration, NSAIL set up a Cold Rolling mill complex in 1994 with a capacity of 120,000 MT per annum, which is gradually increased to present capacity of 300,000 MT per annum with the addition of a new CRM in 2004.

After establishing reputation in both the National and International markets as a quality manufacturer of Cold Rolled and Galvanised products, in the year 2004, as a part of forward integretion, NSAIL ventured into the manufacturing of Colour Coated/Pre painted prouducts in technical collaboration and Machinery from Bronx, Australia under the brand "National Color".

NSAIL takes pride in its highly successful brand which it owes to its rigorous quality objectives programme.

NSAIL Steel has undoubtedly evolved as a leader among top galvanised steel sheets / coils manufacturers in India.



Superior Galvani



sed Sheets and Coils

Strengthening Steel further

As a part of backward integration NSAIL set up a Cold Rolling Mill Complex in 1994 and further added capacity in 2004 with total production of 300,000 TPA. A HR band splitter, a push pull pickling line with shallow bath technology from Keram Chemie, precision Roll grinder, wear trimming cum slitting line are the auxillary units of the CRM Complex. The heart of the complex is the modern high speed, 4 Hi Cold reversing mill imported from Canada. It has Digital drives, computerised mill management system and H.A.G.C. (Hydraulic Automatic Gauge Control). Initial capacity of 60,000 MT per annum was doubled to 120,000 MT through upgradation – QWRC (Quick Work Roll Change), Auto pass line adjustment and Pay off speed increase. CRM provides a consistently clean substrate with dimensional tolerances to its Galvanising Lines.



National Steel's fully computerised galvanising line incorporates the world's latest NON-OX process comprising superior surface cleaning and preparation techniques, along with computer-aided annealing followed by hot dip galvanising in a zinc bath.



Finally, the steel sheets and coils undergo water quenching with D. M. water and skinpassing with Tension Leveller to give surface suitable for colour coating with excellent flatness. Post-surface treatment known as chromating is done to retain its shine, brightness and improved corrosion resistance.

The resultant products are far superior in terms of adherence of zinc coating and surface finish and meet international standards such as ASTM, JIS, DIN & Ethiopian as well as Indian Standards.



b



c



d



e

- a Pickling line
- b Annealing furnace
- c Zinc bath
- d Slitting / Rewinding
- e Cold rolling mill

The Quality Shines through

A hand-picked team of experienced and highly skilled technicians, trained by the European collaborators, exercise stringent quality control measures during entire production process. The composition of the zinc bath is carefully controlled to ensure maximum adherence of the zinc coating, thus ensuring long lasting surface coating for the sheets.

An automatic zinc coating thickness gauge maintains and controls the thickness of zinc coating accurately and ensures uniform coating.

Quality checks of raw materials are carried out prior to processing.



After galvanising, strict on-line checking and laboratory tests ensure that products meeting the international quality norms only pass through the production line.

Thus, NSAIL's products have an edge over other manufacturers.



Versatile Product range

NSAIL's wide range includes

Cold Rolled – Coils, Slits, Sheets

Galvanised – Coils, Slits, Sheets-Plain and Corrugated

Available in annealed and full hard conditions, these sheets are manufactured in thickness varying from 0.14 mm to 1.50 mm and with a coating weight of 100 g/m² to 300 g/m². Lock forming and drawing qualities of galvanised sheets can be supplied against specific orders.

Colour Coated – Coils, Slits, Profiles, Sheets-Plain and Corrugated

For Colour Coated material different Paint coating thickness varying from 0.20 mm to 1.25 mm can be given with varieties of colour shades as per RAL shade card. The production line is a continuous reverse roller coating line with 'two coat two bake' system.

Coils for bulk requirements are also available in above range with weights varying from 3 MT. to 12 MT.

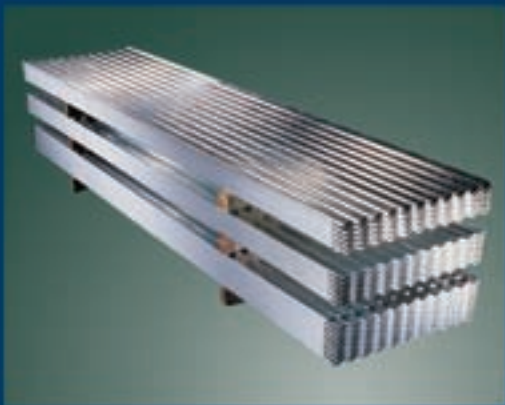
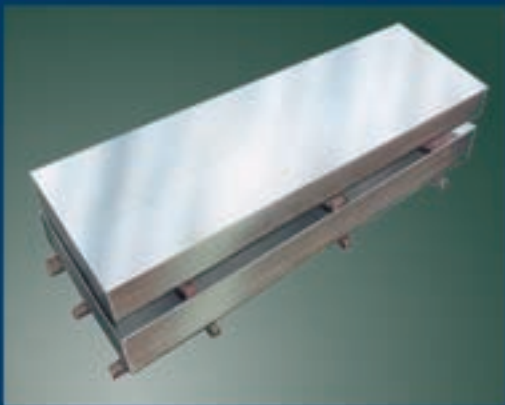
As all the company's products are corrosion resistant, they can withstand fluctuations in climatic conditions and find widespread applications in industries ranging from Construction to Electrical; Chemical to Automobile and Packaging to Agriculture.

Modernisation

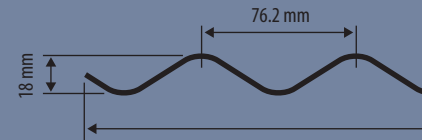
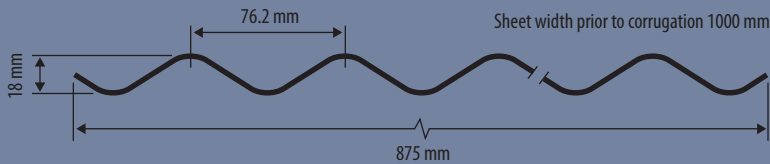
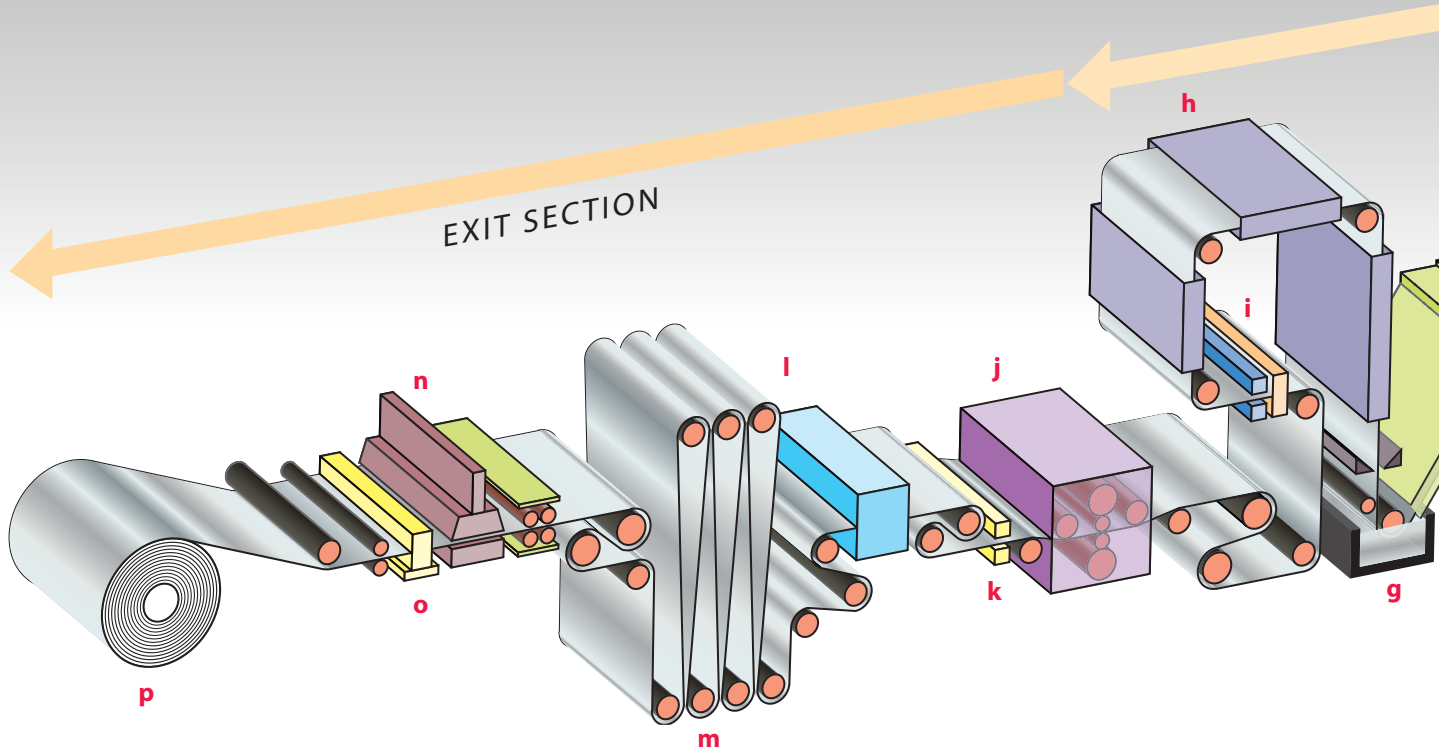
Cold Rolling / Galvanising mills must be updated regularly to meet ever increasing demand for high quality product at competitive production costs. NSAIL has pioneered many of the techniques now accepted as essential, if steel companies are to remain competitive.

In addition to quality enhancement techniques, NSAIL has also carried out many engineering and maintenance improvements, resulting in lower operating costs.

NSAIL has also had considerable success with major modernisation schemes involving almost total replacement of outdated equipment and production methods, achieving capacity utilisation to the tune of 120%.



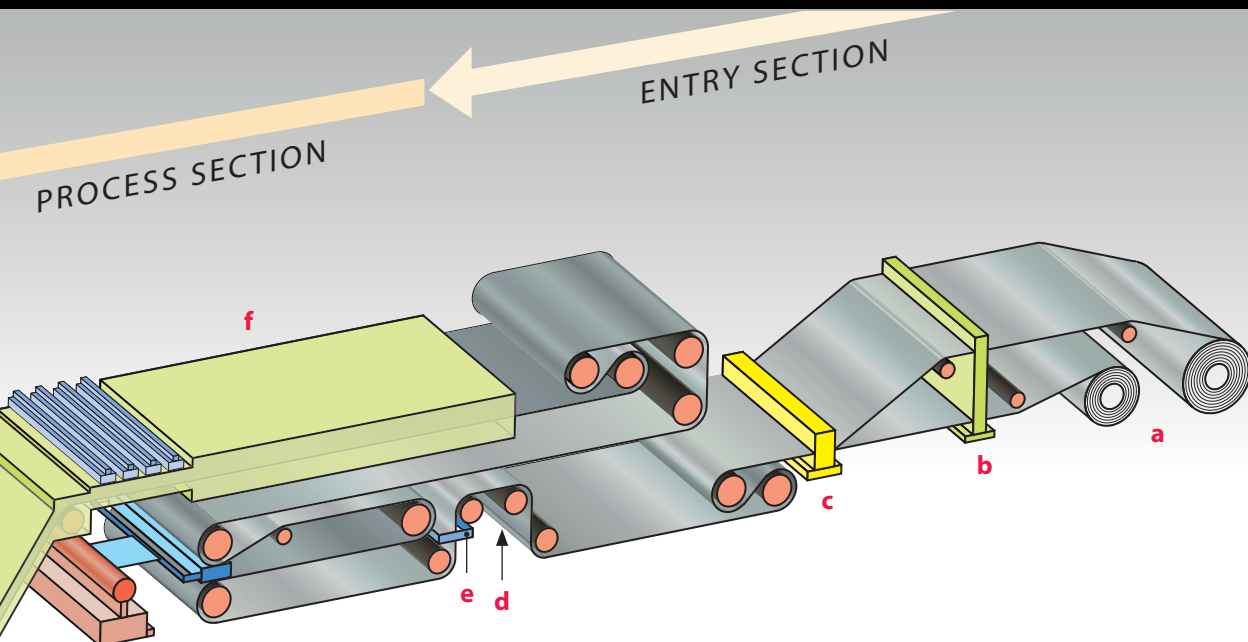
Process Flow Chart



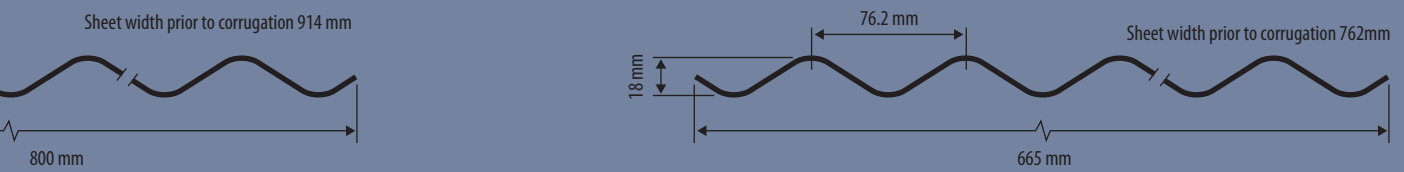
PRODUCT	THICKNESS * (mm)	WIDTH (mm)	COATING (gms/m ²)	FINISH
Hot Dipped Galvanised Coils	0.14 to 1.25 (1.5 up to 'D' grade)	600 – 1250	100 – 300	Regular / mini / smooth / TL / chromated & dry / oiled
Plain Sheets	0.14 to 1.25	600 – 1250	100 – 300	Regular / mini / smooth / TL / chromated & dry / oiled
Corrugated Sheets	0.14 to 1.25	762 – 1220	100 – 300	Regular / mini / smooth / TL / chromated & dry / oiled
Slits	0.14 to 1.25	20 – 600	100 – 300	Regular / mini / smooth / TL / chromated & dry / oiled
Cold Rolled Steel Coils	0.14 to 2.00	600 – 1250	N.A.	As Rolled
Plain Sheets	0.14 to 2.00	600 – 1250	N.A.	As Rolled

* 0.14 mm to 0.25 mm - available up to 1000 mm width maximum

TL : Tension leveled • CS : Commercial Steel • DS : Drawing Steel • LFQ : Lock-forming Quality
DDS : Deep Drawing Steel • EDDS : Extra Deep Drawing Steel



- | | | | | | |
|----------|---------------------------|----------|-------------------------------|----------|------------------|
| a | PAY-OFF REEL | f | NON OX TYPE ANNEALING FURNACE | k | DRYER |
| b | SHEAR | g | ZINC POT | l | STRETCH LEVELLER |
| c | WELDER | h | COOLING TOWER | m | ACCUMULATOR |
| d | DOUBLE ROLL STEERING UNIT | i | QUENCH & CG | n | CHROMATING |
| e | SENSOR | j | S.P. MILL | o | SHEAR |
| | | | | p | PRODUCT |



ID	OD	COIL / PKT. WEIGHT (mt)	QUALITY	PACKING	STANDARDS
LENGTH (mm)					
MIN	MAX				
508	1500	2 mt – 15 mt	CS/DS/LFQ/DDS/EDDS/ SSGr 33, 37, 40, 50 & 80, and equivalent	Mills standard export sea worthy	JIS G 3302 /3316 ASTM A 653 DIN-EN 10142 / 10143 DIN-EN 10147 IS 277 ESC.D7.001 ESC.D7.026
1800	3660	2 mt – 4 mt	CS/DS/LFQ/DDS/EDDS/ SSGr 33, 37, 40, 50 & 80, and equivalent	Mills standard export sea worthy	
1800	3660 up to 4880 for ltd. thk.	2 mt – 4 mt	FULL HARD / CS	Mills standard export sea worthy	
508	1200	0.1 mt – 3 mt	CS/DS/LFQ/DDS/EDDS/ SSGr 33, 37, 40, 50 & 80, and equivalent	Mills standard export sea worthy	
508	1800	3 mt – 15 mt	FULL HARD	Mills standard export sea worthy	JIS G 3141 IS 513
1800	3660	2 mt – 3 mt	FULL HARD	Mills standard export sea worthy	

Product Specifications

A p p l i c a t i o n s

Transforming Quality into Reality

Lasting Steel. Lasting Products.

CONSTRUCTION

Roofing, Side-walls, Panels,
Partitions, Ghamelas,
Profiled section

AGRICULTURAL

Shovels, Feeding Troughs,
Grain Silos, Sprayers

OUTDOOR

Sign-Boards, Hoardings,
Road Signs

HOUSEHOLD

Trunks, Iceboxes, Pails/
Buckets, Tubs, Storage/
Dustbins, Water Tanks,
Milk Containers

ELECTRICAL APPLIANCES

Airconditioners, Coolers,
Refrigerators, Freezers,
Washing Machines

INDUSTRIAL

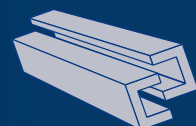
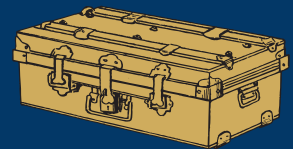
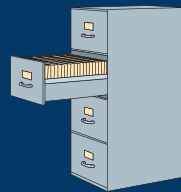
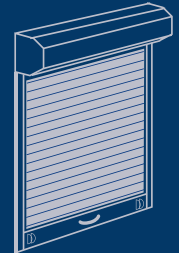
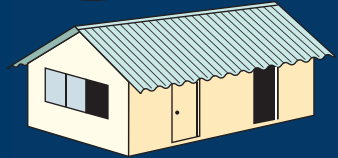
Air-conditioning Ducts,
Electrical Control Panels,
Drums/Barrels, Rolling
Shutters, Thermal Cladding,
Coated Sheets

FURNITURE & FIXTURES

Desks, Lockers, Racks,
Lightweight Chairs

AUTOMOBILE

Car, Bus, Truck Bodies,
Undercarriage Work, Air
& Oil Cleaners, Fuel & Oil
Tanks, Exhaust Pipes



Packing the Performance

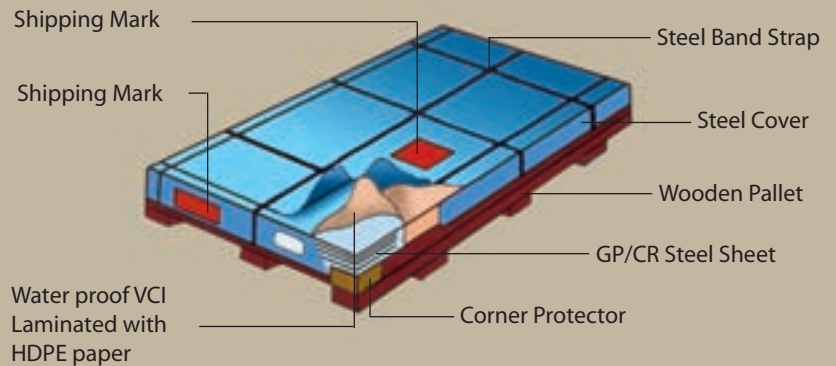
For easy identification every packet and coil is marked with tags inside as well as outside. At the inner side packet / coil no., size, net weight are shown. Material description and specification, size, destination, net weight, gross weight, packet / coil no. are shown at the outer side.



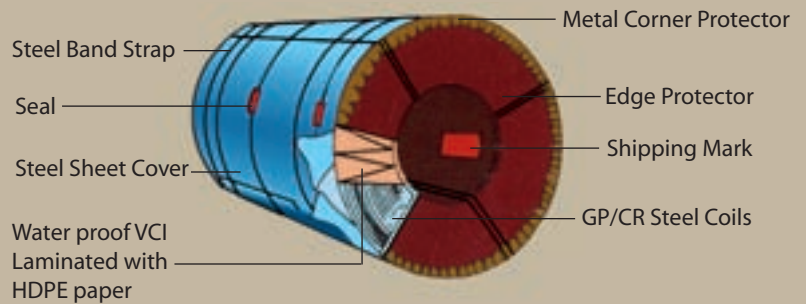
Guide to Ordering :

While ordering, the following need to be specified to ensure correct and prompt delivery; thickness, width, length, zinc coating, maximum weight of coil or maximum O. D., quality, delivery schedule, bright / matt / dull finish, spangles and number of corrugations.

SHEETS



COILS



Packing as per customer's specification can also be provided.

