

# **COLD ROLLED STEEL**



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### **Cold Rolled Steel**

ISL produces premium quality Cold Rolled Steel (Commonly known as Cold Rolled Coil "CRC") on a modern and advanced Cold Rolling Mill designed by SMS Siemag, Germany. This state-of-the-art facility produces high quality steel products with outstanding finish and workability. ISL's cold rolled steel is highly valued by customers in the automobile, home appliances, furniture, drum, tube, filter, tin plate and various other industrial segments.

ISL's CRC is provided in a range of product specifications, ranging from drawing to structural, to meet our customers' specific requirements. After the recent expansion, ISL has the capacity to produce 1,000,000 MT of CRC annually.



#### **MAX. WIDTH & THICKNESS\***

- 1,250 mm
- 0.15 mm 3.00 mm (0.006" 0.118")

#### **GRADES**

As per ASTM A1008, JIS G3141 and equivalent standards

#### **PROPERTIES**

- Annealed, Skin-passed
- As Rolled
- Bright and Dull Finish
- Oiled / Unoiled



# **Manufacturing Process**



Hot rolled coils are descaled with hydrochloric acid

#### **REWINDING / ELECTROLYTIC CLEANING\***

To reduce tension, coils are rewound before annealing

#### **SKIN-PASSING**

Skin-passing enhances the mechanical properties, surface flatness and texture of the steel. If required, electrostatic oil is applied to the coils at this stage, in order to prevent oxidation

**PACKING** 

Packing is customizable according to customer requirements



Pickled coils are reduced to the desired thickness by cold rolling

### Coils are heated and then cooled in a

controlled atmosphere to achieve the required properties of the steel grade being produced

Tension leveler removes unwanted curvature formed on steel coil as a result of continuous rolling and ensures flatness through elongation of steel. Electrostatic oil is applied to the coils at this stage to prevent oxidation

\*Electrolytic Cleaning Line (ECL) improves the surface quality of our products specifically for automotive and appliances sector by cleaning the remaining rolling emulsion and iron fines.

#### **Manufacturing Standards**

Our products are manufactured as per ASTM A1008, JIS G3141 and equivalent standards related to commercial and structural grades in sheets and coils.

### **Production Facilities**

Strategically located in the heart of Pakistan's largest business hub - Karachi and in close proximity of the sea port, ISL's cold rolled steel manufacturing facility has a production capability of 1,000,000 MT per annum.

#### **Technology Partners**

ISL uses some of the world's most advanced steel-making equipment, supplied by internationally renowned manufacturers, such as:













#### **Grades and Specifications**

ТҮРЕ	ASTM A1008 GRADES	JIS G3141 GRADES	APPLICABLE NOMINAL THICKNESS	STANDARD WIDTH AVAILABLE BEFORE SLITTING
Commercial	CS Type A / B / C	SPCC-1 SPCC-4 SPCC-8	0.006" - 0.118" (0.15 mm - 3.00 mm) 0.006" - 0.118" (0.15 mm - 3.00 mm) 0.027" - 0.078" (0.70 mm - 2.00 mm) 0.006" - 0.118" (0.15 mm - 3.00 mm)	20 52" - 40 21"
Drawing	DS Type A / B EDDS	SPCE SPCG	29.53" - 49.2 0.019" - 0.118" (0.50 mm - 2.00 mm) (750 mm - 1,2 0.019" - 0.118" (0.50 mm - 2.00 mm)	
Structural	SS80	-	0.006" - 0.118" (0.15 mm - 3.00 mm)	
Automotive	-	SPCF - 440	0.023" - 0.118" (0.60 mm - 2.00 mm)	
High Carbon Structural Grade	Grade 1050	S50C	0.023" - 0.059" (0.70 mm - 1.50 mm)	0.027" - 39.37" (750 mm - 1,000 mm)

<sup>\*</sup>Thickness tolerance: 1/2 of ASTM A568 and 1/2 of JIS G3141





# **Quality Assurance Tests**

ISL carries out various quality assurance tests to ensure that the material complies with the usage parameters.

QUALITY TESTS PERFORMED	EQUIPMENT
TENSILE TEST	Universal tensile testing machine, Precision tensile testing machine with arrangement for determining R value and N value
CUPPING TEST	Cupping test machine
HARDNESS TEST	Vickers hardness tester, Rockwell superficial hardness tester
BEND TEST	Hydraulic flattening press
FLUTING TEST	Fluting mandrel
SURFACE FINISH	Surface roughness tester
FLATNESS MEASUREMENT	Surface plate



ISO 9001: 2015 Quality Management System
ISO 14001: 2015 Environment Management System
ISO 45001: 2018 Occupational Health & Safety Management System





# **Applications**

AUTOMOTIVE COMPONENTS



HARDWARE AND SANITARY



GATES AND DOOR FRAMES



**◆ PACKAGING DRUMS** 



DOMESTIC APPLIANCES



ELECTRICAL GOODS



**OIL FILTERS** 



BASE MATERIAL FOR GALVANIZING AND COATING



**♦** SWITCH GEARS



TUBES AND SECTIONS



# Why ISL?



#### **AVAILABILITY**

ISL's efficient inventory and supply chain management system ensures that running items are available ex-stock.



#### **PRODUCT QUALITY**

ISL's products are manufactured using highquality raw material sourced from world's leading tier-1 mills. The steel produced in ISL's cuttingedge facility completely conforms to the global standards of steel manufacturing.



#### **GLOBAL FOOTPRINT**

With close proximity to the country's sea port, ISL has a strategic location that provides efficient access to regional and international markets.



#### PRECISE DIMENSIONAL TOLERANCE

Minimal deviation in mechanical properties due to state-of-the-art production and quality control systems.



#### **NATION-WIDE SALES NETWORK**

A vast nationwide dealership network caters to all major cities of Pakistan.



#### **AFTER SALES SUPPORT**

ISL being a customer-centric company, ensures peace of mind to its customers with its comprehensive after sales support and swift handling of complaints and queries.



#### **CUSTOMIZATION**

ISL offers various value-added products and services as per customer requirements, ranging from special grade steel products to services like custom cutting and slitting.



#### **PACKING STANDARDS**

Exceptional packaging standards ensure that ISL products reach their destinations in a prime and "mill fresh" condition.



### **Value-added Services**

#### **CUT-TO-LENGTH**

ISL has the capacity to provide cut-to-length material depending on customer requirements.



#### THICKNESS RANGE

0.15 mm to 3.00 mm



#### **COIL WIDTH**

1,250 mm max.



#### **COIL WEIGHT**

25 tons max.



#### **CUTTING WIDTH**

min. 400 mm, max. 1,250 mm



#### **CUTTING LENGTH**

min. 300 mm, max. 5,000 mm



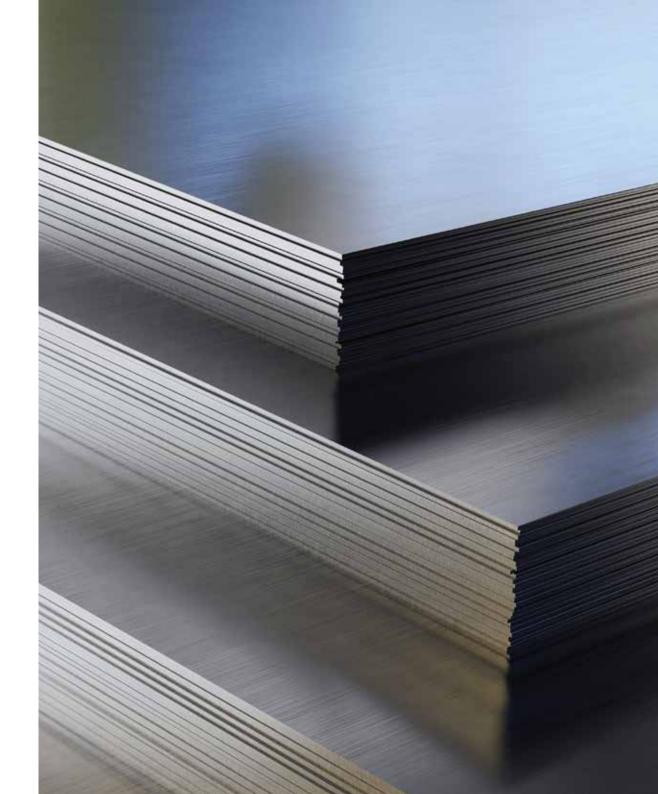
#### **PALLET WEIGHT**

2.5 MT max.



#### **TOLERANCE OF CUTTING LENGTH**

+/- 1 mm max.



#### **SLITTING SPECIFICATIONS**

ISL's Service Center has the capability to provide slitted coils as specified by customers.



#### **THICKNESS RANGE**

0.15 mm - 2.60 mm



#### **COIL WIDTH**

1,250 mm max.



#### **COIL WEIGHT**

25 tons max.



#### **INTERNAL DIAMETER**

508 mm



#### **EXTERNAL DIAMETER**

1,700 mm



#### **SLIT WIDTH TOLERANCE**

+/-0.1 mm max.



#### MINIMUM SLITTED WIDTH

25 mm



## **Transport and Handling Precautions**



#### **LIFTING DEVICES**

Always use proper lifting devices like C-hook or parallel hooks, magnetic lifters, nylon slings etc. to lift, load and unload coils and sheet packets.



#### **RUBBER SHEETS**

When transporting coils in trucks, use rubber sheets beneath the coils or an exclusive transport stand.



#### **SKIDS**

While stacking the coils on floor, ensure that they are placed on proper skids to avoid formation of dents.



#### **MOVING & SHIFTING**

While using lifter, always carry sheets in a packed condition to prevent them from slipping or getting scratched.



#### **HANDLING WITH SLINGS**

Nylon slings are preferred. Use rubber pads on coils where the sling comes in contact with them.



#### **SECURE LASHING**

While transporting in containers, coils must be lashed adequately and securely to avoid damage to the products.



#### **SECURE STACKING**

While transporting, ensure that the stacked sheets are firmly secured down, to avoid them slipping off due to vibrations and movements.



#### **SLINGS & ROPES**

Secure coils and sheet packets with slings/chains/ropes while transporting in trucks. Use rubber pads between these fasteners and steel products.



#### **FORKLIFT**

Do not push cut-sheets or roll the coils with a forklift, since this could cause scratching.



# **Storing Precautions**



#### **DRY STORAGE**

Keep the coil and sheets dry and store them in a well-ventilated place.



#### **AVOID WETNESS AND CONDENSATION**

If wetness or condensation is found, then dry it at once. An effective measure is to dry a shipment with a fan or similar equipment while unpacking it.



#### **COVERED STORAGE**

Always store the sheets in a covered storage area.



#### **OPEN STORAGE**

Although not recommended, if in any case the sheets must be stored in the open, the following precautions should be taken:

- Put sleepers such as square pieces of lumber at proper intervals on the ground and then place the sheets on top of them.
- Lay sleepers on flat ground. The tops of the sleepers must be equally leveled to prevent the sheets from warping.
- Ensure air circulation.
- Ensure that the sheets are covered with waterproof sheeting or canvas to protect them from rain and sunlight.



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# **COLOR COATED STEEL**



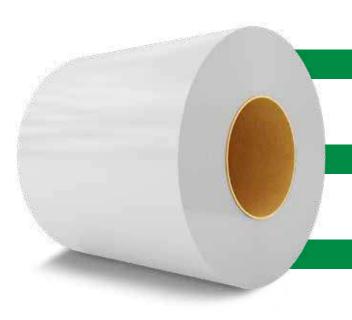
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### **Color Coated Steel**

ISL's Continuous Color Coating facility produces color coated steel using a Wet Paint Coating technology. The 84,000 MT state-of-the-art facility processes and coats a wide range of substrates like cold rolled, galvanized, galvalume, aluminum and stainless steel, in any imaginable color.

The high-quality color coating enhances the corrosion resistance of substrates and adds to their aesthetic appeal. The color coated steel produced at ISL is stain-resistant, corrosion-resistant and scratch-resistant, which makes it ideal for various commercial and industrial applications.



#### **MAX. WIDTH & THICKNESS\***

- 1,250 mm
- 0.28 mm 1.50 mm (0.011" 0.060")

#### **GRADES**

As per ASTM A755, JIS G3312 and equivalent standards

#### **PROPERTIES**

- Heat Cured Paint on GI Substrate
- Single / Double Sided Painted
- Finish Coat (Polyester / PVDF)



## **Manufacturing Process**



The coil is degreased to remove machining fluids and other contaminants

#### 93 PRIMER COATING

Primer is applied to ensure better adhesion of paint to the surface while providing additional protection to the material

#### 05 FINISH COATING

At this stage, top coat and backer coat are applied to the primed material

#### 07 RECOILER

Recoils the steel for packing and dispatch



#### 02 CHEMICAL TREATMENT

A thin layer of chromate is applied in order to prepare the steel for primer coating

#### 04 PRIME OVEN

Primer coated steel is baked in an oven to ensure adhesion to the substrate

#### 06 FINISH OVEN

The final coat is baked again to ensure permanency of the surface coat

#### **Manufacturing Standards**

Our products are manufactured as per ASTM A755, JIS G3312 and equivalent standards related to commercial and structural grades in sheets and coils.

# **Paint Systems**

ISL uses Polyester (PE), Polyvinylidene Difluoride (PVDF) and Polyamide paint systems.



#### **PE PAINT SYSTEM**

PE paint system is economical and is recommended for materials exposed to normal atmospheric conditions.



#### POLYVINYLIDENE DIFLUORIDE (PVDF) PAINT SYSTEM

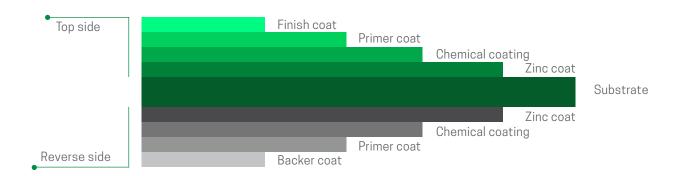
Polyvinylidene Difluoride PVDF paint is used on materials exposed to severe atmospheric conditions due to its stable corrosion and UV resistance.



#### **POLYAMIDE PAINT SYSTEM**

Being UV durable, oxidation and scratch-resistant; the Polyamide paint system in combination with high-build primers, is used on materials exposed to extremely corrosive environments.

#### **MATERIAL COMPOSITION**



#### STANDARD PRODUCT

Top side finish coating, reverse side primer plus backer coat

### **Production Facilities**

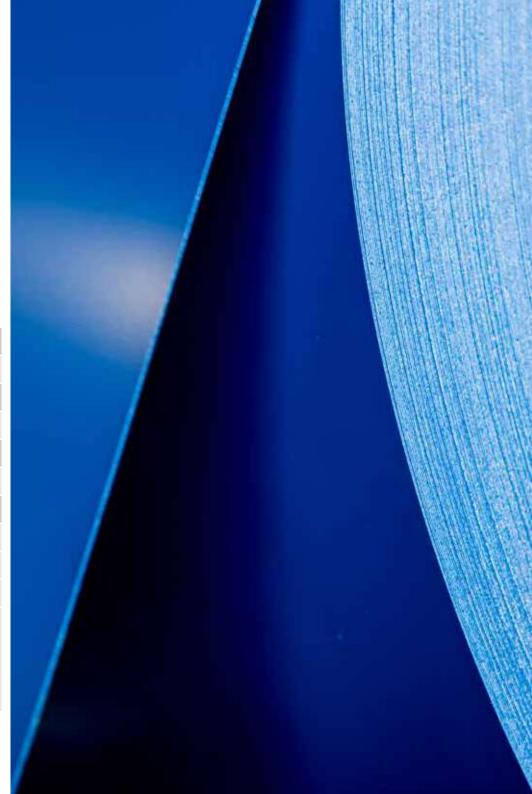
#### Two Coat - Two Bake system

ISL's color coating line applies uniform color thickness and highly reproducible colors and gloss levels, thanks to the Two coat - Two bake system that enables application of primer and top coat in the same run. Different color coats can be applied to the front and back simultaneously.

#### **Grades and Specifications**

Applicable Nominal Thickness	0.011" - 0.060" (0.28 mm - 1.50 mm)
Standard Width Available before Slitting	29.53" - 49.21" (750 mm - 1,250)
Coil weight (MT)	1.5 - 10
Coil ID (mm)	20" / 508 mm
Total coating thickness (micron)	30 - 100 (including metallic coat, top, back primer)
Substrates	Galvanized steel, Galvalume and Aluminium
Finishes	Smooth, Matt, High Gloss and Grain
ASTM A755 Grades	CS Type A / B
JIS G3312 Grades	CGCC
Zinc Coating (gm/m²)	Z50 - Z180
Base Material	Galvanized: As per ASTM A653 / JIS G3302 / EN 10327 Galvalume: As per ASTM A792 Aluminium: As per ASTM B209

<sup>\*</sup>Thickness tolerance: 1/2 of ASTM A924 and 1/2 of JIS G3312



# **Quality Assurance Tests**

PROPERTIES	TEST	TESTING STANDARDS		POLYESTER PAINT	
COLOR COATED COILS AND SHEETS		JISG 3312	EN 10169	ASTMA 755	
Dry film thickness	Coating thickness	-	EN 13523 - 1	ASTM D 1186	As per order
Gloss	Specular gloss at 60°	13.2.3	EN 13523 -2	ASTM D 523	20 - 90 GU
Scratch hardness	Pencil hardness	13.2.3	EN 13523 - 4	ASTM D 3363	H - 2H
Impact resistance	Reverse impact test	13.2.4	EN 13523 - 5	ASTM D 2794	100 kg - cm
Adhesion quality	Cupping test	13.2.5	EN 13523 - 6	ASTM D 643	6.5 mm (min)
Flexibility	T-bend test	13.2.2	EN 13523 - 7	ASTM D 4145	1T - 5T
Corrosion resistance	Salt spray (fog) test	13.1.3	EN 13523 - 8	ASTM D 117	500 hrs
Solvent resistance	M.E.K. rubbing test	-	EN 13523 - 11	ASTM D 4213 ASTM D 5402	100 dr (min)
Adhesion	Cross hatch cutter with standard adhesion tape	13.2.2	EN ISO 2409	ASTM D 3359	4B
Measurement of color difference	Data color spectrometer	-	-	-	ECC standard or as per agreement with the customer

#### TESTS FOR FALSE CEILING AND ROLLER SHUTTER APPLICATIONS

TEST STANDARD AS PER ECCA	FALSE CEILING APPLICATION	ROLLER SHUTTER APPLICATION
Coating thickness (Top)	20 microns +/-2	20 microns +/-2
Coating thickness (Bottom)	5 microns +/- 2	5 microns +/- 2
Gloss at 60	10 to 90%	20 to 35%
Pencil hardness	F-H	F-H
Impact (kg.cm)	32	32
Erichsen (mm)	5	5
Cross hatch	100%	100%
Radius bend	<b>1</b> T	1T
Solvent resistance	100	100
Humidity	Good	Excellent
Salt spray	Good	Excellent
Virtual inspection of color difference	Good	Good



# **Applications**



**AGRICULTURE** 

(Grain silos, sprayers, pans, feeding troughs)



COLD STORAGES AND UNITS

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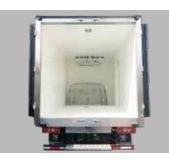


**DOMESTIC USE** 

(Trunks, tubs, buckets, storage bins, water tanks)



**◆ CONSTRUCTION** 



**ELECTRICAL APPLIANCES** 



FURNITURE AND FIXTURES



#### **MEP APPLICATIONS**

(Ducting, drums/barrels, containers, thermal cladding, air-conditioning ducts, railway coaches and others)





FALSE CEILING



OUTDOOR APPLICATIONS



## Why ISL?



#### **AVAILABILITY**

ISL's efficient inventory management system ensures that running items are available ex-stock.



#### **PRODUCT QUALITY**

ISL's products are manufactured using highquality raw material sourced from world's leading tier-1 mills. The steel produced in ISL's cutting-edge facility completely conforms to the global standards of steel manufacturing.



#### **AFTER SALES SUPPORT**

ISL being a customer-centric company, ensures peace of mind to its customers with its comprehensive after sales support and swift handling of complaints and queries.



#### **GLOBAL FOOTPRINT**

With close proximity to the country's sea port, ISL has a strategic location that provides efficient access to regional and international markets.



#### PRECISE DIMENSIONAL TOLERANCE

Minimal deviation in mechanical properties due to state-of-the-art production and quality control systems.



#### **PACKING STANDARDS**

Exceptional packaging standards ensure that ISL products reach their destinations in a prime and "mill fresh" condition.



#### **NATION-WIDE SALES NETWORK**

A vast nationwide dealership network caters to all major cities of Pakistan.



#### **ENDURANCE**

ISL's color coated steel is durable, corrosion-resistant and endures extreme weather conditions.



#### **CUSTOMIZATION**

ISL offers various value-added products and services as per customer requirements, ranging from special grade steel products to services like custom cutting and slitting.



#### SUPERIOR AESTHETICS

Wide range of colors and profiles are available which can be chosen according to the preference, usage and purpose.



### **Value-added Services**

#### **CUT-TO-LENGTH**

ISL has the capacity to provide cut-to-length material depending on customer requirements.



#### **THICKNESS RANGE**

0.28 mm to 1.50 mm



#### **COIL WIDTH**

1,250 mm max.



#### **COIL WEIGHT**

25 tons max.



#### **CUTTING WIDTH**

min. 400 mm, max. 1,250 mm



#### **CUTTING LENGTH**

min. 300 mm, max. 5,000 mm



#### **PALLET WEIGHT**

2.5 MT max.



#### **TOLERANCE OF CUTTING LENGTH**

+/- 1 mm max.



#### **SLITTING SPECIFICATIONS**

ISL's Service Center has the capability to provide slitted coils as specified by customers.



#### **THICKNESS RANGE**

0.15 mm - 2.60 mm



#### **COIL WIDTH**

1,250 mm max.



#### **COIL WEIGHT**

25 tons max.



#### **INTERNAL DIAMETER**

508 mm



#### **EXTERNAL DIAMETER**

1,700 mm max.



#### **SLIT WIDTH TOLERANCE**

+/- 0.1 mm



#### **MINIMUM SLITTED WIDTH**

25 mm



## **Profile Specifications**

#### Features:

Light Weight: ISL's color coated profiles can easily be installed or dismantled.

Fine Finish: These sheets are uniformly coated to offer superior finish and aesthetics.

**Heat Insulation:** The color coating on these sheets have strong heat insulating properties.

Water Resistant: With water resistant properties, these sheets are rust-proof.

Weather Resistant: Without getting damaged, color coated steel can bear extreme weather conditions.

**High Strength:** Better tensile strength enable these sheets to bear heavy loads.

Attractive Appearance: ISL's color coated profiles are available in an attractive range of colors that makes them appealing in look.

**Durability:** ISL's color coated profiles are highly durable and do not require any additional protective coating; this makes them an economical building material.

#### **Applications:**

Storage buildings or warehouses, exhibition halls, gymnasiums, industrial buildings, shopping malls, glasshouses, household roofing, commercial buildings etc.

ISL offers these types of profiled sheets :

#### **SINUSOIDAL**

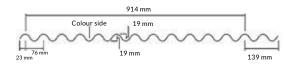
Coil Width : 914/1,000/1,219 mm Effective Width : 760/846/1,064 mm

 Radius
 : 20 mm

 Depth
 : 16 mm

 Pitch
 : 65.9 mm

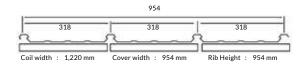
Thickness : 0.3 mm to 0.60 mm



#### **CLIP LOCK**

Coil width : 1,219 mm
Effective Width : 954 mm
Depth : 42 mm
Pitch : 315 mm

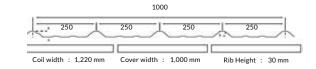
Thickness : 0.40 mm to 0.60 mm



#### **SCREW DOWN**

Coil width : 1,219 mm
Effective Width : 1,000 mm
Depth : 30 mm
Pitch : 250 mm

Thickness · 0.30 mm to 0.70 mm



# **Transport and Handling Precautions**





#### **LIFTING DEVICES**

Always use proper lifting devices like C-hook or parallel hooks, magnetic lifters, nylon slings etc. to lift, load and unload coils and sheet packets.



#### **RUBBER SHEETS**

When transporting coils in trucks, use rubber sheets beneath the coils or an exclusive transport stand.



#### **SKIDS**

While stacking the coils on floor, ensure that they are placed on proper skids to avoid formation of dents.



#### **HANDLING WITH SLINGS**

Nylon slings are preferred. Use rubber pads on coils where the sling comes in contact with them.



#### **SECURE LASHING**

While transporting in containers, coils must be lashed adequately and securely to avoid damage to the products.



#### **SECURE STACKING**

While transporting, ensure that the stacked sheets are firmly secured down, to avoid them slipping off due to vibrations and movements.



#### **FORKLIFT**

Do not push cut-sheets or roll the coils with a forklift, since this could cause scratching.



#### **SLINGS & ROPES**

Secure coils and sheet packets with slings/chains/ropes while transporting in trucks. Use rubber pads between these fasteners and steel products.



#### **MOVING & SHIFTING**

While using lifter, always carry sheets in a packed condition to prevent them from slipping or getting scratched.

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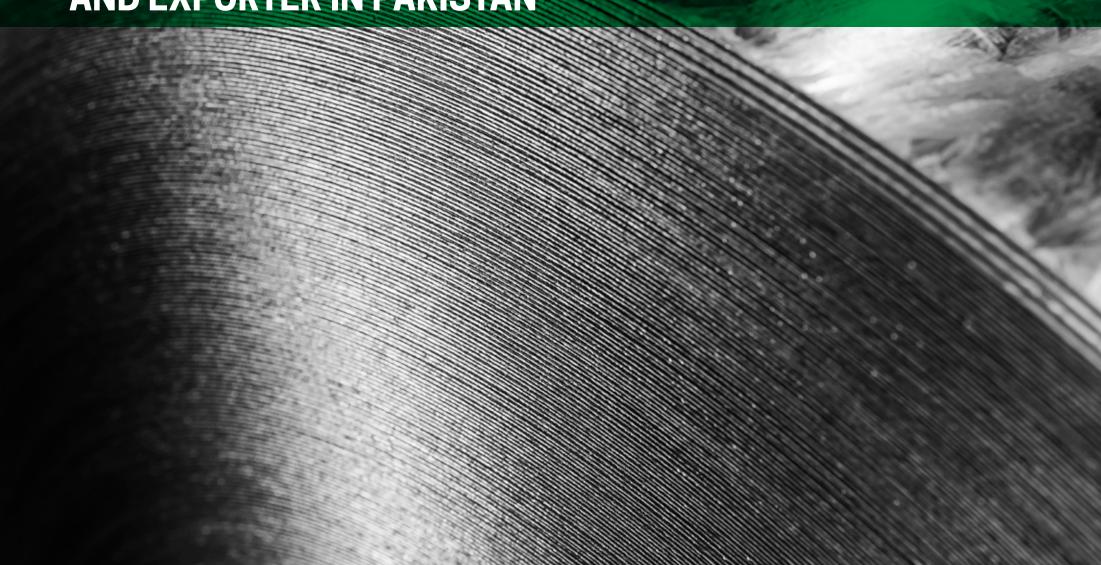




# HOT DIP GALVANIZED STEEL



# LARGEST FLAT STEEL MANUFACTURER AND EXPORTER IN PAKISTAN



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# **Hot Dip Galvanized Steel**

ISL's Hot Dip Galvanized Steel is produced on a state-of-the-art, fully automated production line. The best available raw materials and processes are applied under controlled conditions to produce material of the highest quality.

With a production capacity of 460,000 MT, ISL's Galvanizing facility produces products of high quality and endurance, thanks to a dynamic production team and rigorous quality control systems.



#### **MAX. WIDTH & THICKNESS\***

- 1,250 mm
- 0.18 mm 2.50 mm (0.007" 0.098")

#### **GRADES**

As per ASTM A653, JIS G3302 and equivalent standards

#### **PROPERTIES**

- Regular / Suppressed Spangle
- Chromated and Dried
- Skin-passed / Non skin-passed



## **Manufacturing Process**

01 DEGREASING & ELECTROLYTIC CLEANING

In order to achieve better coating adhesion, the steel's surface is rinsed and air-dried to get rid of residual electrostatic oil

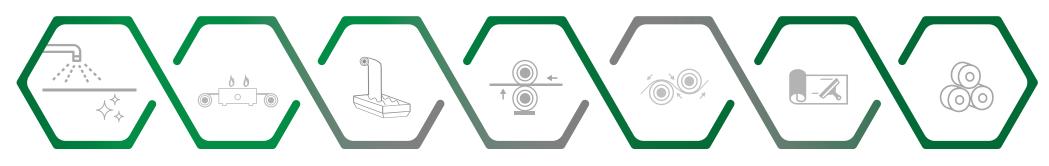
03 GALVANIZING

The annealed steel is then immersed in a molten zinc pot under an inert atmosphere, which forms a protective layer around the steel

05 TENSION LEVELER

Tension leveler reduces any shape defects and ensures flatness through elongation of steel 7 PACKING

Packing is customizable according to customer requirements



02 CONTINUOUS ANNEALING

Cold rolled coils are annealed in a continuous NOX furnace

04 SKIN-PASSING

Skin Passing is done to reduce strain marks and impart a uniform surface texture on the coated product (If specified by the customer) APPLICATION OF CHROMATE

A thin coat of chromate - a rust inhibitor, is applied to the hot dip galvanized product as it leaves the tension leveler. This chromate solution is squeegeed onto both surfaces and then air-dried

### **Manufacturing Standards**

Our products are manufactured as per ASTM A653, JIS G3302 and equivalent standards related to commercial and structural grades in sheets and coils.

## **Production Facilities**

In order to deliver quality products and to meet different customer requirements, ISL produces high-quality hot dip galvanized steel on two technologically advanced, fully automated continuous galvanizing lines. These galvanizing lines are equipped with cutting-edge galvanizing machinery, provided by some of the world's most renowned equipment-makers and suppliers.

#### **Technology Partners**



















#### **Grades and Specifications**

TYPE	ASTM A653 GRADES	JIS G3302 GRADES	APPLICABLE NOMINAL THICKNESS*	STANDARD WIDTH AVAILABLE BEFORE SLITTING	ZINC COATING WEIGHT* (gm/m²)
Commercial	CS Type A / B	SGCC	0.007" - 0.098" (0.18 mm - 2.50 mm)	29.53" - 49.21" (750 mm - 1,250 mm)	
Commercial		SGCH	0.007" - 0.039" (0.18 mm - 1.00 mm)	29.53" - 49.21" (750 mm - 1,250 mm)	
Forming	FS Type A / B		0.016" - 0.040" (0.40 mm - 1.00 mm)	29.53" - 49.21" (750 mm - 1,250 mm)	*Z60 - Z275
Structural	SS33 SS80	SGC340 SGC570	0.007" - 0.098" (0.18 mm - 2.50 mm)	29.53" - 49.21" (750 mm - 1,250 mm)	
	SS40 SS50	SGC400 SGC440	0.012" - 0.079" (0.30 mm - 2.00 mm)	42.12" - 48.00" (1,070 mm - 1,219 mm)	
Drawing	DDS EDDS	SGCD	0.014" - 0.033" (0.36 mm - 0.85 mm)	48.00" (1,219 mm)	Z60 - Z100

<sup>\*</sup>Thickness tolerance: 1/2 of ASTM A568 and 1/2 of JIS G3141



<sup>\*</sup>Minimum zinc coating weight based on the zinc table

<sup>\*</sup>Other width and thicknesses can be made available on request

# **QUALITY ASSURANCE TESTS**

QUALITY TESTS PERFORMED	EQUIPMENT	
ZINC COATING MASS IN LINE	Jasch gauge	
ZINC COATING MASS LABORATORY	Weigh scale, glass ware, sample punch	
ZINC POT CHEMISTRY ANALYZER	SPECTROMAXx	
COATING ADHESION TEST	T bend tester	
FLUTING TEST	Fluting tester	
TENSILE TEST	Universal tensile testing machine	
YIELD POINT TEST	Universal tensile testing machine	
ELONGATION TEST	Universal tensile testing machine, vernier caliper	
HARDNESS TEST	Rockwell hardness tester, Vickers hardness tester	
BASE METAL THICKNESS	Micrometer	
STRIP WIDTH	Measuring tape	
STRIP FLATNESS	Surface plate	
SURFACE DEFECTS	Strobe light for inspection , visual inspection, top and bottom of moving strip	
CUPPING TEST	Cupping test machine	
STRIP SAMPLING	Strip bench shear	
DETERMINATION OF CHEMICAL COMPOSITION	Optical emission spectrometer for ferrous and non-ferrous materials	



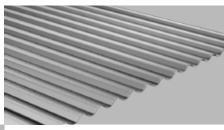


ISO 9001: 2015 Quality Management System
ISO 14001: 2015 Environment Management System
ISO 45001: 2018 Occupational Health & Safety Management System

### **Production Facilities**



CONSTRUCTION AND ROOFING



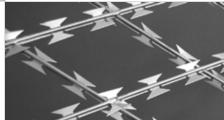
HVACR AND DUCTING



**PIPING** 



TRUNKS AND STORAGE BOXES



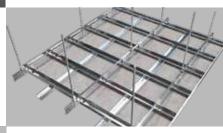
RAZOR WIRE



GUARDRAILS, HANDRAILS AND STREET FURNITURE



SUSPENDED CEILINGS



INDUSTRIAL EQUIPMENT



LIGHT GAUGE
STEEL STRUCTURES



**■ OUTDOOR** SIGNAGE



WALL PARTITIONS



AGRICULTURE AND HORTICULTURE



## Why ISL?



#### **AVAILABILITY**

ISL's efficient inventory management system ensures that running items are available ex-stock.



#### **GLOBAL FOOTPRINT**

With close proximity to the sea port, ISL has a strategic location that provides efficient access to the domestic and international markets.



#### **NATION-WIDE SALES NETWORK**

A vast nationwide dealership network caters to all major cities of Pakistan.



#### **CUSTOMIZATION**

ISL offers various value-added products and services as per customer requirements, ranging from special grade steel products to services like custom cutting and slitting.



#### **PRODUCT QUALITY**

ISL's products are manufactured using premium quality raw material sourced from world's leading tier-1 mills. The steel produced in ISL's cuttingedge facility completely conforms to the global standards of steel manufacturing.



#### PRECISE DIMENSIONAL TOLERANCE

Minimal deviation in mechanical properties due to state-of-the-art production and quality control systems. The coating thicknesses are regular, predictable and easily specified.



#### **ENDURANCE**

Strong adhesion of zinc with the base metal gives it long-lasting protection against corrosion, good service life, and formability in subsequent manufacturing processes.



#### **THREE WAY PROTECTION**

The zinc coating slows down the weathering process, the protective layer sacrifices itself to any small areas exposed through drilling, cutting or accidental damage.



#### **AFTER SALES SUPPORT**

ISL being a customer-centric company, ensures peace of mind to its customers with its comprehensive after sales support and swift handling of complaints and queries.



#### **PACKING STANDARDS**

Exceptional packaging standards ensure that ISL products reach their destinations in a prime and "mill fresh" condition.



## **Value-added Services**

#### **CUT-TO-LENGTH**

ISL has the capacity to provide cut-to-length material depending on customer requirements.



#### **THICKNESS RANGE**

0.18 mm to 2.50 mm



#### **COIL WIDTH**

1,250 mm max.



#### **COIL WEIGHT**

25 tons max.



#### **CUTTING WIDTH**

min. 400 mm, max. 1,250 mm



#### **CUTTING LENGTH**

min. 300 mm, max. 5,000 mm



#### **PALLET WEIGHT**

2.5 MT max.



#### **TOLERANCE OF CUTTING LENGTH**

+/- 1 mm max.



#### **SLITTING SPECIFICATIONS**

ISL's Service Center has the capability to provide slitted coils as specified by customers.



#### **THICKNESS RANGE**

0.15 mm - 2.60 mm



#### **COIL WIDTH**

1,250 mm max.



#### **COIL WEIGHT**

25 tons max.



#### **INTERNAL DIAMETER**

508 mm



#### **EXTERNAL DIAMETER**

1,700 mm max.



#### **SLIT WIDTH TOLERANCE**

+/- 0.1 mm



#### **MINIMUM SLITTED WIDTH**

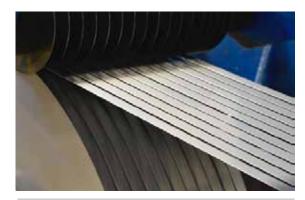
25 mm



## **Value-added Services**

ISL Service Center shapes flat rolled steel into various forms for a wide range of industrial and commercial applications, ranging from profiles that form exceptionally durable structures to custom cut sheets and slitted coils that serve as ready-to-use input for various purposes.

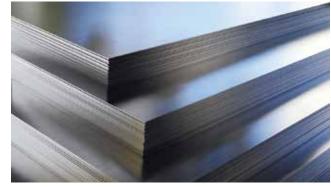
### Slitting:



SLITTING SPECIFICATIONS

PARAMETERS	UNIT	VALUE
Min. Thickness	Inch / mm	0.0059" / 0.15 mm
Max. Thickness	Inch / mm	0.098" / 2.50 mm
Min. Width	Inch / mm	0.98" / 25 mm
Max. Width	Inch / mm	49.21" / 1,250 mm
Coil ID	Inch / mm	20" / 508 mm
Width Tolerance	+/- 0.0118"	

### **Cut-to-Length:**



CUT-TO-LENGTH SPECIFICATIONS

PARAMETERS	UNIT	VALUE
Min. Thickness	Inch / mm	0.0059" / 0.15 mm
Max. Thickness	Inch / mm	0.098" / 2.50 mm
Min. Width of Sheet	Inch / mm	15.74" / 400 mm
Max. Width of Sheet	Inch / mm	49.21" / 1,250 mm
Min. Length of Sheet	Inch / mm	11.811" / 300 mm
Max. Length of Sheet	Inch / mm	196.85" / 5,000 mm
Length Tolerance	+/- 0.039"	

### **Profiles:**



PROFILING SPECIFICATIONS

PROFILE	DIAGRAM	DIMENSIONS
Sinusoidal	<b>~~~</b>	0.0118" - 0.0236 0.30 - 0.60 mm
Clip Lock	2_2	0.0157" - 0.0236" 0.40 - 0.60 mm
Screw Down	~~	0.0118" - 0.0275" 0.30 - 0.70 mm
C Channels		0.0295" - 0.0452" 0.75 - 1.15 mm

### C and Z Purlins

ISL produces a broad range of structural channel sections and purlins for construction and solar-related applications such as Pre-Engineered Buildings, Light Gauge Steel Structures, and Solar Mounting Structures. They are primarily used to provide lightweight, economical, efficient roofing and cladding support systems for framed structures. The proven properties of these purlins make new construction systems cost-effective and safe, because of their high load-bearing capacity.

By providing ease of production, procurement, transportation, and assembly, C and Z purlins also increase the reliability, speed, and affordability of steel construction. Made from quality, Hi-Tensile galvanized steel, ISL Purlins are produced in the ISL manufacturing facility and can be supplied plain or punched as per the requirements of the customers.

ISL has two different machines to serve the demands of different types of customers.

#### **Applications:**

- Industrial and General Construction
- Halls, Sheds and Warehouse Construction
- Extensions and Refurbishments
- Commercial Buildings
- Modular Structures

#### **Specifications:**

Flange: 40~100 mm

Web: 150~450 mm

Lip: 12~30 mm

Flange: 40~100 mm

Web: 150~450 mm

Lip: 12~30 mm

Flange: 58 mm

Web: 152 mm

Lip: 18 mm





# **Transport and Handling Precautions**



#### **LIFTING DEVICES**

Always use proper lifting devices like C-hook or parallel hooks, magnetic lifters, nylon slings etc. to lift, load and unload coils and sheet packets.



#### **RUBBER SHEETS**

When transporting coils in trucks, use rubber sheets beneath the coils or an exclusive transport stand.



#### **SKIDS**

While stacking the coils on floor, ensure that they are placed on proper skids to avoid formation of dents.



#### **MOVING & SHIFTING**

While using lifter, always carry sheets in a packed condition to prevent them from slipping or getting scratched.



#### **HANDLING WITH SLINGS**

Nylon slings are preferred. Use rubber pads on coils where the sling comes in contact with them.



#### **SECURE LASHING**

While transporting in containers, coils must be lashed adequately and securely to avoid damage to the products.



#### **SECURE STACKING**

While transporting, ensure that the stacked sheets are firmly secured down, to avoid them slipping off due to vibrations and movements.



#### **SLINGS & ROPES**

Secure coils and sheet packets with slings/chains/ropes while transporting in trucks. Use rubber pads between these fasteners and steel products.



#### **FORKLIFT**

Do not push cut-sheets or roll the coils with a forklift, since this could cause scratching.



# **Storing Precautions**



#### **DRY STORAGE**

Keep the coil and sheets dry and store them in a well-ventilated place.



#### **AVOID WETNESS AND CONDENSATION**

If wetness or condensation is found, then dry it at once. An effective measure is to dry a shipment with a fan or similar equipment while unpacking it.



#### **COVERED STORAGE**

Always store the sheets in a covered storage area.



#### **OPEN STORAGE**

Although not recommended, if in any case the sheets must be stored in the open, the following precautions should be taken:

- Put sleepers such as square pieces of lumber at proper intervals on the ground and then place the sheets on top of them.
- Lay sleepers on flat ground. The tops of the sleepers must be equally leveled to prevent the sheets from warping.
- Ensure air circulation.
- Ensure that the sheets are covered with waterproof sheeting or canvas to protect them from rain and sunlight.



#### HEAD OFFICE

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#### **REGIONAL OFFICE MULTAN**

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#### REGIONAL OFFICE ISLAMABAD

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Shaping Tomorrow





#### TOTAL INVESTMENT



\$250 MILLION

#### **ANNUAL PRODUCTION**

1,000,000
METRIC TONS

#### PRODUCTION FACILITY ON



32 ACRES

#### **EXPORTING TO OVER**

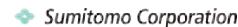


20 COUNTRIES

### ORIGINAL EQUITY CONTRIBUTORS









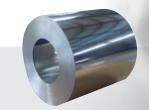
#### PRODUCTION CAPABILITIES

ISL products are fully compliant with the national and global standards of steelmaking. As the largest manufacturer and exporter of flat steel products in Pakistan, ISL deploys the best available technology to deliver quality, reliability, and availability to provide sustenance to thousands of small and large-sized businesses across Pakistan as well as beyond international borders.



**COLD ROLLED STEEL** 

1,000,000
METRIC TONS



HOT DIP GALVANIZED STEEL

**450,000**METRIC TONS





Bright or Dull Finish
 Tension Levelled
 Thickness Tolerance:
 1/2 of ASTM A568

## **COLD ROLLED STEEL**

Manufactured as per the ASTM A1008, JIS G3141 and equivalent standards

Туре	Grade	Applicable Nominal Thickness (Inches)	Standard Widths Available (Before Slitting)
Commercial	CS Type A CS Type B	0.006" - 0.118" (0.15 mm - 3.00 mm)	29.53" - 49.21" (750 mm - 1,250 mm)
Structural	SS 80	0.006" - 0.118" (0.15 mm - 3.00 mm)	29.53" - 49.21" (750 mm - 1,250 mm)

## **HOT DIP GALVANIZED STEEL**

Manufactured as per the ASTM A653, JIS G3302 and equivalent standards

Туре	Grade	Applicable Nominal Thickness (Inches)	Standard Widths Available (Before Slitting)	Zinc Coating
Commercial	CS Type A/B FS Type A/B	0.007" - 0.098" (0.18 mm - 2.50 mm)	29.53" - 49.21" (750 mm - 1,250 mm)	Z60 - Z275
SS Grades	SS 33 SS 80	0.007" - 0.098" (0.18 mm - 2.50 mm)	29.53" - 49.21" (750 mm - 1,250 mm)	Z60 - Z275
	SS 40 SS 50	0.0157" - 0.079" (0.40 mm - 2.00 mm)	42.12" & 48.00" (1,070 mm & 1,219 mm)	Z90 - Z275

#### Properties:

- Regular / Suppressed Spangle
- Chromated and Dry
- Skin Passed / Non Skin Passed

Thickness Tolerance: 1/2 of ASTM A924

SERVICES

ISL Service Center shapes flat rolled steel into various forms for a wide range of industrial and commercial applications, ranging from profiles that form highly durable structures to custom-cut sheets and slitted coils that serve as ready-to-use input for various purposes.



Slitting Specifications			
Parameters	Unit	Value	
Min. Thickness	Inch/mm	0.0059"/0.15 mm	
Max. Thickness	Inch/mm	0.098"/2.50 mm	
Min. Width	Inch/mm	0.98"/25 mm	
Max. Width	Inch/mm	49.21"/1,250 mm	
Coil ID	Inch/mm	20"/508 mm	
Width Tolerance	+/- 0.0118	,,	



Profile Specifi	cations
Profile	Dimensions
Sinusoidal Profiles	0.0118" - 0.0236" 0.30 - 0.60 mm
Clip Lock Profiles	0.0157" - 0.0236" 0.40 - 0.60 mm
Screw Down	0.0118" - 0.0275" 0.30 - 0.70 mm
C Channels	0.0295" - 0.0452"

0.75 - 1.15 mm

#### **C AND Z PURLINS**

ISL produces a broad range of structural channel sections and purlins for construction and solar-related applications such as Pre-Engineered Buildings, Light Gauge Steel Structures, and Solar Mounting Structures.

They are primarily used to provide lightweight, economical, efficient roofing and cladding support systems for framed structures. The proven properties of these purlins make new construction systems cost-effective and safe, because of their high load-bearing capacity. By providing ease of production, procurement, transportation, and assembly,

C and Z purlins also increase the reliability, speed, and affordability of steel construction. Made from quality, Hi-Tensile galvanized steel, ISL Purlins are produced in the ISL manufacturing facility and can be supplied plain or punched as per the requirements of the customers.

Our two different machines serve the demands of different types of clientele.

#### Applications:

Industrial construction, hall and warehouse construction, extension construction and renovation, agricultural projects, commercial buildings, modular structures, and refurbishments.

Specificiations of C and Z Purlins Machine 1				
Input Material	Cold Rolled / Hot Dip Galvanized Steel			
Thickness Range	0.047"~0.118" (1.20 mm~3.00 mm)			
Zinc Coating	14 microns - 38.5 micron			
Web Size	5.90" - 17.71" (150 - 450 mm)			
Flange Height	1.57" - 3.93" (40 - 100 mm)			
Lip	0.47" - 1.18" (12 - 30 mm)			







Specificiations of Z Purlins Machine 2			
Input Material	Cold Rolled / Hot Dip Galvanized Steel		
Thickness Range	0.047" - 0.059" (1.20 mm~1.50 mm)		
Zinc Coating	14 microns - 38.5 micron		
Web Size	5.98" (152 mm)		
Flange Height	2.28" (58 mm)		
Lip	0.70" (18 mm)		



### **SEA WORTHY PACKAGING**

- Cardboard Sleeves for up to 0.0157" (0.40mm) thickness.
- VCI film protected paper and polyethylene protective film up to 100 Micron for protection.
- Coils are placed on wooden pallets for CTL / Slitting orders.
- Cardboard Edge protectors are used to secure coils from any damage during transit.
- Outer Steel disk to avoid direct water or moisture penetration.



### Connect on WhatsApp :



#### Head Office:

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#### Service Center:

Plot# LE-73-79, 102-103, 112-118, 125-129 Survey # NC.98, Near Arabian Country Club, National Industrial Park, Bin Qasim, Karachi, Pakistan















