

# Wire Rod



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# WIRE ROD

## Pohang & Gwangyang Steelworks

### Pohang Steelworks



Upon completion of its first-phase manufacturing facility in 1973, Pohang Steelworks, Korea's first integrated steel mill, was finally completed after 4 stages of construction at Young-il Bay in February 1981.

POSCO is capable of producing and processing a variety of carbon steels and stainless steels. The company's global competitiveness was further enhanced when we opened the world's first FINEX commercialization facility in May 2007.

**Main products** \_ Hot-rolled steel, Plate, Cold-rolled steel, Wire rod, Electrical steel, Stainless steel, API steel, etc.

**Crude steel production** \_ 16,852 million tons (as of 2021)

### Gwangyang Steelworks



Gwangyang Steelworks is the world's largest integrated steel mill which features an optimal layout for processing carbon steel.

Products from Gwangyang works include automotive steel, high-strength hot rolled steel, high-quality API steel, and thick plates among other products.

With the goal of specializing in the manufacturing of the world's best automotive steels, Gwangyang Steelworks focuses on enhancing its competitive edge.

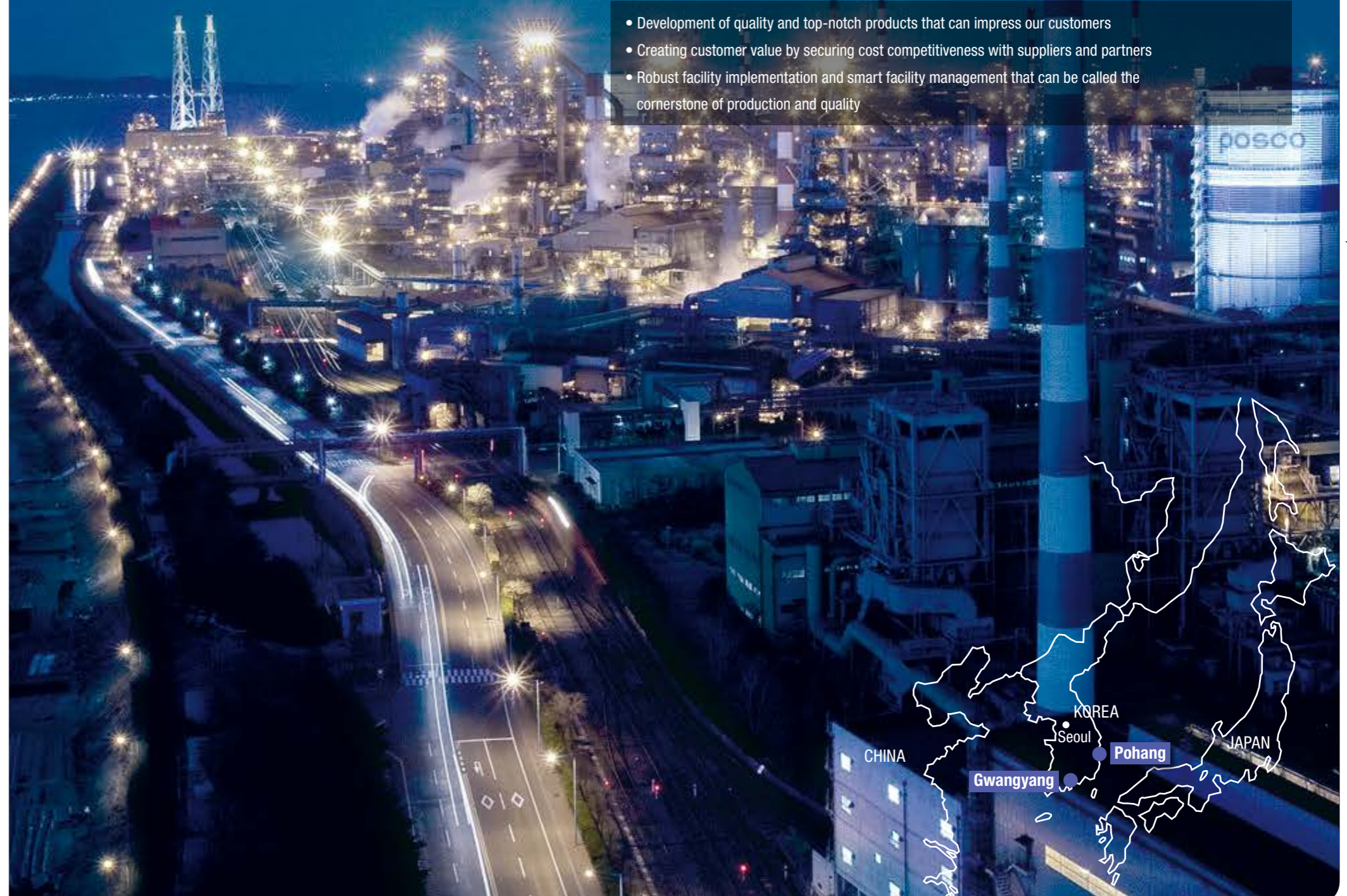
**Main products** \_ Hot-rolled steel, Plate, Cold-rolled steel, Car steel, API steel, etc.

**Crude steel production** \_ 21,412 million tons (as of 2021)

# Creation of customer value by securing product quality and cost competitiveness

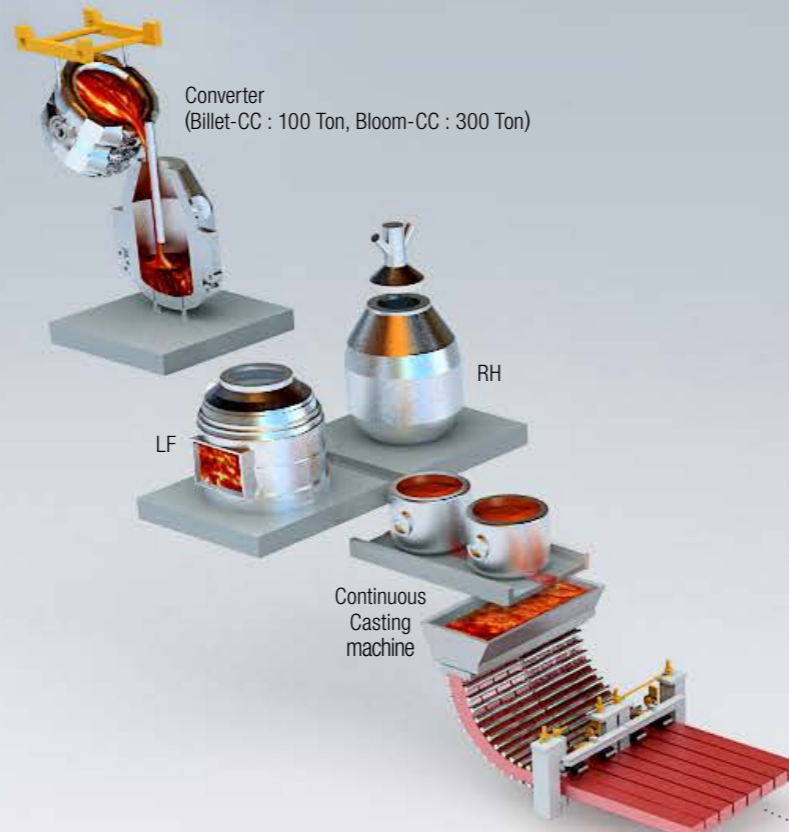
Realization of symbiotic values through the establishment of a robust industrial ecosystem with suppliers, partners, and customers

- Development of quality and top-notch products that can impress our customers
- Creating customer value by securing cost competitiveness with suppliers and partners
- Robust facility implementation and smart facility management that can be called the cornerstone of production and quality



# Manufacturing Processes & Equipment

In order to deliver quality products POSCO is equipped with the latest fully-automated, computer-controlled, cutting-edge facilities and technologies. These tools guarantee products of the highest precision and quality for our customers.



### Billet Conditioning

To improve the surface quality of wire rods, billets are descaled by shot blasting, and inspected for surface flaws by magnetic particle tester. Grinding machines are used to remove any surface flaws. In addition, continuous ultrasonic testing is conducted to guarantee the prime quality



### Reheating

Reheating furnace is carefully examined, to produce prime materials in customers' desired properties. To prevent decarburization, billets are preheated at a low temperature, followed by a full heating process, to suit a right temperature for billets' rolling procedure. The rolling speed and fuel-to-air ratio in the reheating furnaces are fully controlled.



### Rolling

The rolling procedure must be carefully controlled, to adjust temperature, pressure and deformation rate to form customers' desired characteristics. Moreover, surface roughness, sizes, and deviations are subject to adjustment to prevent any flaws.



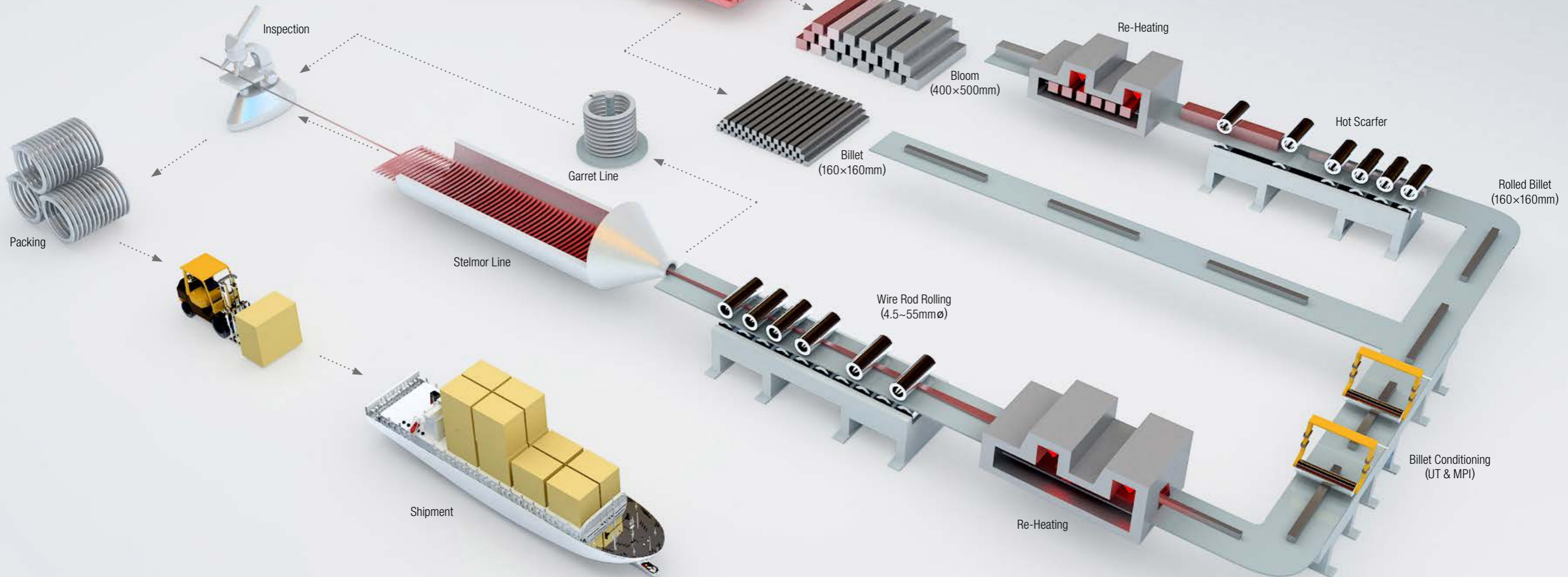
### Cooling

Precise control of temperature, air volume, speed, opening and closing of slow-cooling sections are all variables that affect physical properties. Uniform fast-cooling methods are used for high carbon steel wires, and slow-cooling method is applied for alloy and low-carbon steel.



### Inspection

Samples of leading and trailing edges of wire rods are collected for quality assurance tests, which include surface flaw detection. Once wire rods are deemed prime, products are then packaged and tagged to clients' requirements.



In order to produce high-quality products, our plants are equipped with state-of-the-art facilities and utilize the latest processing techniques.

POSCO's wire rod products, renowned for their quality, are used in a number of areas, ranging from very basic industrial materials to specialized manufacturing facilities equipment. Through the use of cutting-edge facilities and automated systems, POSCO maintains consistent efforts in the development and manufacture of higher quality wire rod products.

Division		#1 Wire Rod Mill	#2 Wire Rod Mill	#3 Wire Rod Mill	#4 Wire Rod Mill
<b>Production Capacity (10 thousand tons)</b>		70	55	88	80
<b>Billets</b>	<b>Unit Weight (tons)</b>	2	2	2	2
	<b>Size(mm)</b>	160×160×10,200	160×160×10,200	160×160×10,200	160×160×10,200
<b>Wire Rod Size(mmΦ)</b>		4.5~13.0	14.0~55.0	5.5~16.0	5.5~22.0
<b>Rolling Mills' Strand</b>	<b>Strand</b>	2	1	2	1
	<b>Type</b>	Horizontal	Horizontal, Vertical	Horizontal, HV	Horizontal, Vertical
	<b>Pass</b>	30	31	31	30
	<b>Line Speed (m/sec)</b>	75	95	110	110
<b>Size(mm)</b>	<b>Capacity(T/H)</b>	110	80	140	150
	<b>Type</b>	Walking Beam	Walking Beam	Walking Beam	Walking Beam
<b>Cooling Equipments</b>		Stelmor	Stelmor, Garret	Stelmor	Stelmor
<b>Major Products</b>		Low Carbon Steel / High Carbon Steel / High Tensile Steel / Free-cutting Steel / Tire Cord Steel	Piano Wire Rods / Bearing Steel / Spring Steel / Welding Steel / Free-cutting Steel / Tire Cord Steel / Carbon Steel for Cold Heading & Forging, Low-alloyed Steel / Carbon Steel for Machine Structural Use		

Accurate Inspection Conducted Prior to Delivering Good Quality Products.

Since the inspections during all the production processes from steelmaking via billet rolling to wire rod rolling are accurately conducted by the computers, All the products are produced in prime. Dimensional accuracy of the end product is assured through continuous, automated inspection processes. In addition, in order to produce superior wire rods, it goes through various kind of final product.

Test Item	Up-Set	Tensile Strength	Reduction of Area	Segregation	Decarburization	Cleanness Level	Structure
<b>Low Carbon Steel Wire Rod</b>	○	-	-	-	-	-	-
<b>High Carbon Steel Wire Rod Piano Wire Rods</b>	○	○	△	○	△	○	○
	○	○	○	○	○	○	○
<b>Steel for Cold Heading &amp; Forging Carbon Steel for Machine Structural Use Free-Cutting Steel</b>	○	△	-	△	○	○	-
	○	△	△	○	○	○	○
	○	△	△	○	○	○	○

## Applications

### Low Carbon Steel

As a low carbon steel product containing 0.06~0.22% of C-content, it is used for producing various kinds of galvanized steel wires, nails and iron nets, etc.

- **POSCO** POSFIS5M1, 6M1, 6B
- **JIS** SWRM6~22

### High Carbon Steel

As a high carbon steel product, it is required to control the fine pearlite, in order to secure the maintenance of high strength and wire extendibility. It is used for wire ropes, precision springs, bead wires and common PC steel wires, etc.

- **JIS** SWRH27~82A/B

### Piano Wire Steel

It is mainly used in applications for high-strength bead wires, LR PC steel wires, and music wires. It is a high carbon clean steel with extendibility of micro-wire, high strength and superior fatigue resistance.

- **POSCO** POSCABLE82, 86, 90, 92  
POSMICRO62, POSCABLE98
- **JIS** SWRS62A/B~92A

### Low-alloyed Steel

Material used for tightening major machine parts such as high strength bolts, nuts shafts & etc. Therefore, it is made with a high strength product added with alloying elements Cr, Ni and Mo and, etc.

- **POSCO** POSMA45R/RM/RS, POSTEN30W, POSNH4/6/9S, POSA1021B/1022B/1038B, POSA15B24H, POSA5120BH
- **JIS** SCM415/420/435/440, SCR415/420/440
- **SAE** 10B21~10B38, 15B24, 15B25, 51B20, 1541, 4037, 4140, 4150, 8740

### High Tensile Strength Steel

PC steel bar used for concrete utility poles and piles. It is the carbon steel for machine structural application added with small quantity of Boron or large quantity of Si. And it has a high elastic constraint and good tension release capability compared to common steel products.

- **POSCO** PSPC22, 30B~35B, 30SI~35SI, 32SIB/32SIBM

### Steel for Welding Wire

It is necessary to micro-control the elements to guarantee the welding performance and the material characteristics of deposited metal. And in order to secure the wire extendibility, TS bias control and slow-cooling of wire rods are applied. This product is used for CO2 electrodes, submerged and common ones, etc.

- **POSCO** POSWELD1A/1B/1CM, 2A/2B/2J/2S, 4B/4D, 23/41/50/60

### Carbon Steel for Cold Heading & Forging

Carbon steel wire rods made from cold forging are used for a wide range of applications, such as automobile components, industrial machinery, bolt, nut screw, in ways of cold-rolling, forging and extrusion, etc.

- **POSCO** POSCH6ASP
- **JIS** SWRCH6A~22A, 10K~45K, 22F~45F, RCH25/35/45FS

### Free-cutting Steel

As a kind of steel with which the machine capability is enhanced with some added free-cutting P and S etc., it is used for some materials of automobiles and home electronics parts.

- **POSCO** POSGRAM70
- **JIS** SUM22/43

⚠ These applications are for general reference only. For your specific application, please consult with our representative specializing in the products you wish to order.

### Tire Cord Steel

It is used for automobile tire reinforcement materials, made of stranded codes after a wire extending process, that makes high carbon steel wire rods into micro wires. Diameter range from 0.4~0.15mm, and a strict quality control is implemented to endure the stress incurred from high speed processing.

- **POSCO** POSCORD60M, 70S/M/D, 80S/M/D, 86, 92CR/SI

### Bearing Steel

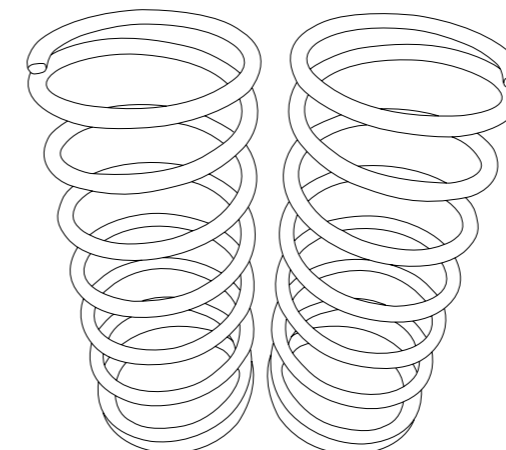
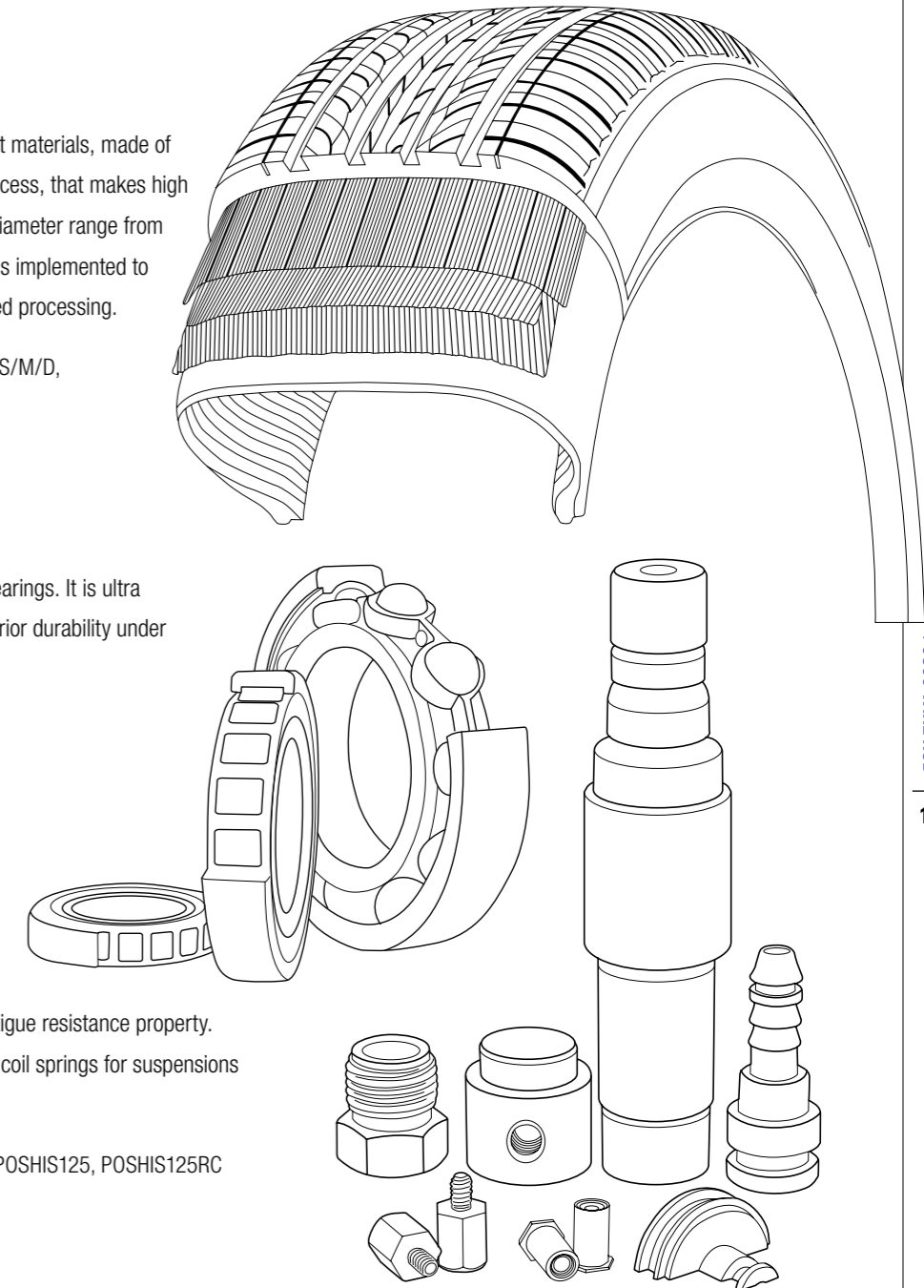
It is used for balls, rollers, and races of bearings. It is ultra clean high alloy steel materials, with superior durability under heavy loading.

- **POCO** POS55CR, POSWIND100
- **JIS** SUJ2
- **ISO** 100CR6
- **SAE** 52100

### Spring Steel

Ultra clean alloying steel, with superior fatigue resistance property. It is mostly used for engine valve springs, coil springs for suspensions and stabilizer bar.

- **POSCO** POSHIS110, POSHIS120L/S, POSHIS125, POSHIS125RC
- **JIS** SUP9/A/D, 11A, 12/12V
- **SAE** 9254/D/S/V/HV
- **DIN** 50CrV4, 54SiCrV6



### Carbon Steel for Machine Structural Use

Carbon Steel for Machine Structural Use transmitting the drive-power of various kinds of shafts of machine parts, after being produced through hot working environment and surface finishing process.

- **JIS** S10~55C

## Quality Assurance

### Tire Cord Steel

#### ■ Tensile strength (5.5mmΦ)

Specification	Wire Rod	Steel Cord
POSCORD60M	850~950MPa	-
POSCORD70S, 70M	940~1080MPa	2800MPa
POSCORD70D	873~971MPa	2800MPa
POSCORD80S, 80M	1078~1216MPa	3200MPa
POSCORD80D	990~1089MPa	3200MPa
POSCORD86	1107~1244MPa	3400MPa
POSCORD86CR	1174~1322MPa	3500MPa
POSCORD92CR	1176~1274MPa	3600MPa
POSCORD92SI	1275~1375MPa	4000MPa

### Bearing Steel

Wire rod size	Quality	Diameter tolerance
15.5~25.0mmΦ	≤0.30mm	±0.20mm
15.5~25.0mmΦ	≤0.35mm	±0.25mm
25.5~35.0mmΦ	≤0.40mm	±0.30mm
35.5~42.0mmΦ	≤0.45mm	±0.35mm

Wire rod size	Decarburization Depth / Surface Defects
4.5~13.0mmΦ	≤ (0.01 × Diameter) mm
13.5~42.0mmΦ	≤ (0.008 × Diameter) mm

\* Please consult with your POSCO representative before ordering this product.

#### ■ Non-metallic inclusion (ISO 4967 Method A, ASTM E45 Method A)

Unit : Grade

	Sulfide		Alumina		Silicate		Oxide		DS Type	T[O]
*Special	1.5	1.0	1.0	0.0	0.0	0.0	0.5	0.5	1.0	≤10ppm
Common	2.0	1.0	1.5	0.5	0.0	0.0	1.0	0.5	1.5	≤12ppm

\* Please consult with your POSCO representative before ordering this product.

### Spring Steel

#### ■ For Engine Valve

Size of Non-Metallic Inclusions	Decarburization Depth	Surface Defects
Max.T ≤ 15μm	DM-F ≤ 0.05mm	≤ 0.05mm

#### ■ For Suspension

Specification	Decarburization Depth		Surface Defects
SAE9254/S	DM-T ≤ 0.15mm	DM-F ≤ 0.03mm	≤ 0.05mm
POSHIS110		DM-F ≤ 0.05mm	
POSHIS120L/S	DM-T ≤ 0.20mm	DM-F ≤ 0.05mm	
POSHIS125/RC		DM-F ≤ 0.03mm	

### Carbon Steel for Cold Heading & Forging

Wire rod size	Quality	Diameter tolerance
4.5~14.0mmΦ	≤0.35mm	±0.25mm
14.5~25.0mmΦ	≤0.40mm	±0.30mm
25.5~34.0mmΦ	≤0.50mm	±0.40mm
34.5~55.0mmΦ	≤0.60mm	±0.50mm

Wire rod size	Surface Defects	
	Y1*, Y2*,Y4* Use	Y7* Use
4.5~13.5mmΦ	≤0.05mm	≤0.03mm
14.0~25.0mmΦ	≤0.07mm	≤0.05mm
25.5~34.0mmΦ	≤0.10mm	≤0.07mm
34.5~55.0mmΦ	≤0.15mm	≤0.10mm

Wire rod size	Decarburization Depth
4.5~14.5mmΦ	DM-T ≤0.15mm, DM-F ≤0.02mm
15.0~25.0mmΦ	DM-T ≤0.20mm, DM-F ≤0.03mm
25.5~42.0mmΦ	DM-T ≤0.25mm, DM-F ≤0.04mm
42.5~55.0mmΦ	DM-T ≤0.30mm, DM-F ≤0.05mm

## Specifications : Chemical Composition

### Low Carbon Steel

#### ■ JIS

Product code	Chemical Compositions(%)					
	C	Si	Mn	P	S	Cu
SWRM6	0.08 Max.	-	0.60 Max.	0.040 Max.	0.040 Max.	-
SWRM8	0.10 Max.	-	0.60 Max.	0.040 Max.	0.040 Max.	-
SWRM10	0.08~0.13	-	0.30~0.60	0.040 Max.	0.040 Max.	-
SWRM12	0.10~0.15	-	0.30~0.60	0.040 Max.	0.040 Max.	-
SWRM15	0.13~0.18	-	0.30~0.60	0.040 Max.	0.040 Max.	-
SWRM17	0.15~0.20	-	0.30~0.60	0.040 Max.	0.040 Max.	-
SWRM20	0.18~0.23	-	0.30~0.60	0.040 Max.	0.040 Max.	-
SWRM22	0.20~0.25	-	0.30~0.60	0.040 Max.	0.040 Max.	-

Remarks) In case, it is specified as a kind of killed steel, the letter, 'K', is attached after the end of the marking word.

#### ■ SAE/AISI

Product code	Chemical Compositions(%)				
	C	Si	Mn	P	S
1006	0.08 Max.	0.10 Max. 0.10~0.20 0.15~0.30 0.20~0.40 0.30~0.60	0.45 Max.	0.040 Max.	0.050 Max.
1008	0.10 Max.		0.50 Max.	0.040 Max.	0.050 Max.
1010	0.08~0.13		0.30~0.60	0.040 Max.	0.050 Max.
1012	0.10~0.15		0.30~0.60	0.040 Max.	0.050 Max.
1015	0.12~0.18		0.30~0.60	0.040 Max.	0.050 Max.
1018	0.15~0.20		0.60~0.90	0.040 Max.	0.050 Max.
1020	0.18~0.23		0.30~0.60	0.040 Max.	0.050 Max.
1021	0.18~0.23		0.60~0.90	0.040 Max.	0.050 Max.
1022	0.18~0.23		0.70~1.00	0.040 Max.	0.050 Max.

Remarks) The silicon content is different from specifications. Thus, please confirm it by consulting our associates.

### Steel for Welding Wire

#### ■ JIS

Product code	Chemical Compositions(%)						
	C	Si	Mn	P	S	Al	Cu
SWRY11	0.09 Max.	0.03 Max.	0.35~0.65	0.020 Max.	0.023 Max.	-	0.20 Max.
SWRY11L	0.08 Max.	0.03 Max.	0.35~0.65	0.020 Max.	0.023 Max.	-	0.20 Max.

### High Carbon Steel

#### ■ JIS

Product code	Chemical Compositions(%)					
	C	Si	Mn	P	S	Cr
SWRH27	0.24~0.31	0.15~0.35	0.30~0.60	0.030 Max.	0.030 Max.	-
SWRH37	0.34~0.41	0.15~0.35	0.30~0.60	0.030 Max.	0.030 Max.	-
SWRH42A	0.39~0.46	0.15~0.35	0.30~0.60	0.030 Max.	0.030 Max.	-
SWRH42B	0.39~0.46	0.15~0.35	0.60~0.90	0.030 Max.	0.030 Max.	-
SWRH47A	0.44~0.51	0.15~0.35	0.30~0.60	0.030 Max.	0.030 Max.	-
SWRH47B	0.44~0.51	0.15~0.35	0.60~0.90	0.030 Max.	0.030 Max.	-
SWRH52A	0.49~0.56	0.15~0.35	0.30~0.60	0.030 Max.	0.030 Max.	-
SWRH52B	0.49~0.56	0.15~0.35	0.60~0.90	0.030 Max.	0.030 Max.	-
SWRH57A	0.54~0.61	0.15~0.35	0.30~0.60	0.030 Max.	0.030 Max.	-
SWRH57B	0.54~0.61	0.15~0.35	0.60~0.90	0.030 Max.	0.030 Max.	-
SWRH62A	0.59~0.66	0.15~0.35	0.30~0.60	0.030 Max.	0.030 Max.	-
SWRH62B	0.59~0.66	0.15~0.35	0.60~0.90	0.030 Max.	0.030 Max.	-
SWRH67A	0.64~0.71	0.15~0.35	0.30~0.60	0.030 Max.	0.030 Max.	-
SWRH67B	0.64~0.71	0.15~0.35	0.60~0.90	0.030 Max.	0.030 Max.	-
SWRH72A	0.69~0.76	0.15~0.35	0.30~0.60	0.030 Max.	0.030 Max.	-
SWRH72B	0.69~0.76	0.15~0.35	0.60~0.90	0.030 Max.	0.030 Max.	-
SWRH77A	0.74~0.81	0.15~0.35	0.30~0.60	0.030 Max.	0.030 Max.	-
SWRH77B	0.74~0.81	0.15~0.35	0.60~0.90	0.030 Max.	0.030 Max.	-
SWRH82A	0.79~0.86	0.15~0.35	0.30~0.60	0.030 Max.	0.030 Max.	-
SWRH82B	0.79~0.86	0.15~0.35	0.60~0.90	0.030 Max.	0.030 Max.	-
SWRH82BC	0.79~0.86	0.15~0.35	0.60~0.90	0.030 Max.	0.030 Max.	0.10~0.40

Remarks) The carbon content specified (in the table) can be reduced by 0.01% from the maximum or increased by 0.01% from the minimum subject to customer agreement.



# Specifications : Chemical Composition

## Piano Steel

### ■ JIS

Product code	Chemical Compositions(%)						
	C	Si	Mn	P	S	Cu	Cr
SWRS62A	0.60~0.65	0.12~0.32	0.30~0.60	0.025 Max.	0.025 Max.	0.20 Max.	-
SWRS62B	0.60~0.65	0.12~0.32	0.60~0.90	0.025 Max.	0.025 Max.	0.20 Max.	-
SWRS67A	0.65~0.70	0.12~0.32	0.30~0.60	0.025 Max.	0.025 Max.	0.20 Max.	-
SWRS67B	0.65~0.70	0.12~0.32	0.60~0.90	0.025 Max.	0.025 Max.	0.20 Max.	-
SWRS72A	0.70~0.75	0.12~0.32	0.30~0.60	0.025 Max.	0.025 Max.	0.20 Max.	-
SWRS72B	0.70~0.75	0.12~0.32	0.60~0.90	0.025 Max.	0.025 Max.	0.20 Max.	-
SWRS77A	0.75~0.80	0.12~0.32	0.30~0.60	0.025 Max.	0.025 Max.	0.20 Max.	-
SWRS77B	0.75~0.80	0.12~0.32	0.60~0.90	0.025 Max.	0.025 Max.	0.20 Max.	-
SWRS77BC	0.75~0.80	0.12~0.32	0.60~0.90	0.025 Max.	0.025 Max.	0.20 Max.	0.10~0.30
SWRS80BC	0.76~0.80	0.12~0.32	0.60~0.90	0.025 Max.	0.025 Max.	0.20 Max.	0.10~0.30
SWRS82A	0.80~0.85	0.12~0.32	0.30~0.60	0.025 Max.	0.025 Max.	0.20 Max.	-
SWRS82B	0.80~0.85	0.12~0.32	0.60~0.90	0.025 Max.	0.025 Max.	0.20 Max.	-
SWRS82BC	0.79~0.85	0.12~0.32	0.60~0.90	0.025 Max.	0.025 Max.	0.20 Max.	0.05~0.30
SWRS82BS	0.80~0.85	0.12~0.32	0.60~0.90	0.025 Max.	0.025 Max.	0.20 Max.	-
SWRS87A	0.85~0.90	0.10~0.30	0.30~0.60	0.025 Max.	0.025 Max.	0.20 Max.	-
SWRS92A	0.90~0.95	0.12~0.32	0.30~0.60	0.025 Max.	0.025 Max.	0.20 Max.	-

## Bearing Steel

### ■ JIS

Product code	Chemical Compositions(%)							
	C	Si	Mn	P	S	Cr	Mo	others
SUJ2	0.95~1.10	0.15~0.35	0.50 Max.	0.025 Max.	0.025 Max.	1.30~1.60	0.08 Max.	Cu 0.20 Max. Ni 0.25 Max.

비고) 용도 및 품질 요구 수준에 따라 SUJ2K, SUJ2, SUJ2Z, SUJ2P로 구분됩니다.

### ■ ISO

Product code	Chemical Compositions(%)							
	C	Si	Mn	P	S	Cr	Mo	others
100CR6	0.93~0.98	0.15~0.35	0.25~0.45	0.025 Max.	0.025 Max.	1.35~1.60	0.10 Max.	Cu 0.25 Max. Ni 0.30 Max.

비고) 용도 및 품질 요구 수준에 따라 100CR6K, 100CR6, 100CR6A로 구분됩니다.

## Spring Steel

### ■ JIS

Product code	Chemical Compositions(%)						
	C	Si	Mn	P	S	Cr	others
SUP9	0.52~0.60	0.15~0.35	0.65~0.95	0.035 Max.	0.035 Max.	0.65~0.95	
SUP9A	0.56~0.64	0.15~0.35	0.70~1.00	0.035 Max.	0.035 Max.	0.70~1.00	
SUP9D	0.52~0.60	0.15~0.35	0.65~0.95	0.030 Max.	0.030 Max.	0.65~0.95	
SUP11A	0.56~0.64	0.15~0.35	0.70~1.00	0.035 Max.	0.035 Max.	0.70~1.00	B : 5ppm Min.
SUP12	0.51~0.59	1.20~1.60	0.60~0.80	0.030 Max.	0.035 Max.	0.60~0.90	
SUP12V	0.58~0.63	1.35~1.60	0.35~0.60	0.030 Max.	0.030 Max.	0.40~0.70	V : 0.15~0.25

Remarks) The maximum Cu content is 0.30%.

### ■ SAE/DIN

Product code	Chemical Compositions(%)						
	C	Si	Mn	P	S	Cr	others
SAE9254/D/S	0.51~0.59	1.20~1.60	0.60~0.80	0.035 Max.	0.040 Max.	0.60~0.80	-
SAE9254V	0.51~0.59	1.20~1.60	0.60~0.80	0.025 Max.	0.025 Max.	0.60~0.80	-
SAE9254HV	0.60~0.70	1.20~1.60	0.50~0.80	0.025 Max.	0.025 Max.	0.50~0.90	V : 0.08~0.25
DN-50CRV4	0.47~0.55	0.15~0.40	0.70~1.10	0.030 Max.	0.030 Max.	0.90~1.20	V : 0.10~0.20
DN-54SICRV6	0.51~0.59	1.20~1.60	0.50~0.80	0.035 Max.	0.040 Max.	0.50~0.80	V : 0.10~0.20

Remarks) The maximum Cu content is 0.30%.

## Free-cutting Steel

### ■ JIS

Product code	Chemical Compositions(%)				
	C	Si	Mn	P	S
SUM22	0~0.13	0.30 Max.	0.70~1.00	0.07~0.12	0.24~0.33
SUM43	0.40~0.48	0.40 Max.	1.35~1.65	0.040 Max.	0.24~0.33

## Soft Magnetic Iron

### ■ JIS

Product code	Chemical Compositions(%)				
	C	Si	Mn	P	S
SUYB1	0.02 Max.	0.05 Max.	0.10~0.40	0.030 Max.	0.030 Max.

# Specifications : Chemical Composition

## Low-alloyed Steel

■ JIS

Product code	Chemical Compositions(%)								
	C	Si	Mn	P	S	Cu	Ni	Cr	Mo
SCM415	0.13~0.18	0.15~0.35	0.60~0.90	0.030 Max.	0.030 Max.	0.30 Max.	0.25 Max.	0.90~1.20	0.15~0.25
SCM415H	0.12~0.18		0.55~0.95					0.85~1.25	0.15~0.30
SCM420	0.18~0.23		0.60~0.90					0.90~1.20	0.15~0.25
SCM420H	0.17~0.23		0.55~0.95					0.85~1.25	0.15~0.30
SCM435	0.33~0.38		0.60~0.90					0.90~1.20	0.15~0.30
SCM435H	0.32~0.39		0.55~0.95					0.85~1.25	0.15~0.35
SCM440	0.38~0.43		0.60~0.90					0.90~1.20	0.15~0.30
SCM440H	0.37~0.44		0.55~0.95					0.85~1.25	0.15~0.35
SCr415	0.13~0.18		0.15~0.35					0.60~0.90	0.030 Max.
SCr420	0.18~0.23	0.60~0.90		0.90~1.20					
SCr420H	0.17~0.23	0.55~0.95		0.85~1.25					
SCr420B	0.18~0.23	0.60~0.90		0.90~1.20	B : 5ppm Min.				
SCr440	0.38~0.43	0.60~0.90		0.90~1.20					

■ SAE/AISI

Product code	Chemical Compositions(%)								
	C	Si	Mn	P	S	B	Cr	others	
10B21	0.18~0.24	0.15~0.30	0.60~1.10	0.040 Max.	0.050 Max.	5ppm Min.	-	-	
10B22	0.18~0.23	0.15~0.30	0.70~1.00	0.040 Max.	0.050 Max.	5ppm Min.	-	Ti : 0.01~0.05	
10B30	0.28~0.34	0.15~0.30	0.70~1.00	0.040 Max.	0.050 Max.	5ppm Min.	-	-	
10B35	0.32~0.38	0.15~0.30	0.60~0.90	0.040 Max.	0.050 Max.	5ppm Min.	-	Ti : 0.01~0.05	
10B38	0.35~0.42	0.10~0.30	0.70~1.00	0.040 Max.	0.050 Max.	5ppm Min.	-	Ti : 0.01~0.05	
15B24	0.19~0.25	0.15~0.35	1.35~1.65	0.040 Max.	0.050 Max.	5ppm Min.	-	-	
15B25	0.23~0.29	0.15~0.35	0.80~1.10	0.040 Max.	0.050 Max.	5ppm Min.	-	-	
51B20	0.17~0.22	0.15~0.35	0.70~0.90	0.030 Max.	0.040 Max.	5ppm Min.	0.70~0.90	Ti : 0.01~0.05	
1541	0.36~0.44	0.15~0.30	1.35~1.65	0.040 Max.	0.050 Max.	-	-	-	
4037	0.35~0.4	0.15~0.35	0.70~0.90	0.035 Max.	0.040 Max.	-	-	Mo : 0.20~0.30	
4140	0.38~0.43	0.15~0.35	0.75~1.00	0.035 Max.	0.040 Max.	-	0.80~1.10	Mo : 0.15~0.25	
4150	0.48~0.53	0.15~0.35	0.75~1.00	0.035 Max.	0.040 Max.	-	0.80~1.10	Mo : 0.15~0.25	
8740	0.38~0.43	0.15~0.35	0.75~1.00	0.035 Max.	0.040 Max.	-	0.40~0.60	Ni : 0.40~0.70 Mo : 0.20~0.30	

## Carbon Steel for Cold Heading & Forging

■ JIS

Product code	Chemical Compositions(%)						
	C	Si	Mn	P	S	Al	
SWRCH6A	0.08 Max.	0.10 Max.	0.60 Max.	0.030 Max.	0.035 Max.	0.02 Min.	
SWRCH8A	0.10 Max.	0.10 Max.	0.60 Max.	0.030 Max.	0.035 Max.		
SWRCH10A	0.08~0.13	0.10 Max.	0.30~0.60	0.030 Max.	0.035 Max.		
SWRCH12A	0.10~0.15	0.10 Max.	0.30~0.60	0.030 Max.	0.035 Max.		
SWRCH15A	0.13~0.18	0.10 Max.	0.30~0.60	0.030 Max.	0.035 Max.		
SWRCH16A	0.13~0.18	0.10 Max.	0.60~0.90	0.030 Max.	0.035 Max.		
SWRCH18A	0.15~0.20	0.10 Max.	0.60~0.90	0.030 Max.	0.035 Max.		
SWRCH22A	0.18~0.23	0.10 Max.	0.70~1.00	0.030 Max.	0.035 Max.		
SWRCH10K	0.08~0.13	0.10~0.35	0.30~0.60	0.030 Max.	0.035 Max.		-
SWRCH18K	0.15~0.20	0.10~0.35	0.60~0.90	0.030 Max.	0.035 Max.		-
SWRCH20K	0.18~0.23	0.10~0.35	0.30~0.60	0.030 Max.	0.035 Max.	-	
SWRCH22K/F	0.18~0.23	0.10~0.35	0.70~1.00	0.030 Max.	0.035 Max.	-	
SWRCH25K/F	0.22~0.28	0.10~0.35	0.30~0.60	0.030 Max.	0.035 Max.	-	
SWRCH30K/F	0.27~0.33	0.10~0.35	0.60~0.90	0.030 Max.	0.035 Max.	-	
SWRCH35K/F	0.32~0.38	0.10~0.35	0.60~0.90	0.030 Max.	0.035 Max.	-	
SWRCH38K/F	0.35~0.41	0.10~0.35	0.60~0.90	0.030 Max.	0.035 Max.	-	
SWRCH40K/F	0.37~0.43	0.10~0.35	0.60~0.90	0.030 Max.	0.035 Max.	-	
SWRCH45K/F	0.42~0.48	0.10~0.35	0.60~0.90	0.030 Max.	0.035 Max.	-	
RCH25FS	0.22~0.28	0.10~0.35	0.30~0.60	0.030 Max.	0.015~0.045	-	
RCH35FS	0.32~0.38	0.10~0.35	0.60~0.90	0.030 Max.	0.015~0.045	-	
RCH45FS	0.42~0.48	0.10~0.35	0.60~0.90	0.030 Max.	0.015~0.045	-	

K : Killed, F : Fine Grain

## Specifications : Chemical Composition

### Carbon Steel for Machine Structural Use

#### ■ JIS

Product code	Chemical Compositions(%)					
	C	Si	Mn	P	S	Cr
S10C	0.08~0.13	0.15~0.35	0.30~0.60	0.030 Max.	0.035 Max.	-
S12C	0.10~0.15	0.15~0.35	0.30~0.60	0.030 Max.	0.035 Max.	-
S15C	0.13~0.18	0.15~0.35	0.30~0.60	0.030 Max.	0.035 Max.	-
S20C	0.18~0.23	0.15~0.35	0.30~0.60	0.030 Max.	0.035 Max.	-
S22C	0.20~0.25	0.15~0.35	0.30~0.60	0.030 Max.	0.035 Max.	-
S25C	0.22~0.28	0.15~0.35	0.30~0.60	0.030 Max.	0.035 Max.	-
S30C	0.27~0.33	0.15~0.35	0.60~0.90	0.030 Max.	0.035 Max.	-
S35C	0.32~0.38	0.15~0.35	0.60~0.90	0.030 Max.	0.035 Max.	-
S45C	0.42~0.48	0.15~0.35	0.60~0.90	0.030 Max.	0.035 Max.	-
S48C	0.45~0.51	0.15~0.35	0.60~0.90	0.030 Max.	0.035 Max.	-
S55C	0.52~0.58	0.15~0.35	0.60~0.90	0.030 Max.	0.035 Max.	-
S45CS	0.42~0.48	0.15~0.35	0.60~0.90	0.030 Max.	0.02~0.04	-
S48CS	0.45~0.51	0.15~0.35	0.60~0.90	0.030 Max.	0.02~0.04	-
S45CR	0.42~0.48	0.15~0.35	0.60~0.90	0.030 Max.	0.035 Max.	0.15~0.25
S55CR	0.52~0.58	0.15~0.35	0.60~0.95	0.030 Max.	0.035 Max.	0.10~0.30

### POSCO Standard

#### ■ Low Carbon Steel

Product code	Chemical Compositions(%)					
	C	Si	Mn	P	S	Cu
POSFIS5AS	0.03 Max.	0.10 Max.	0.20 Max.	0.030 Max.	0.030 Max.	-
POSFIS5M1	0.02 Max.	0.07 Max.	0.10~0.40	0.030 Max.	0.030 Max.	-
POSFIS6M1	0.04 Max.	0.07 Max.	0.15~0.50	0.040 Max.	0.040 Max.	-
POSFIS6B	0.05 Max.	0.07 Max.	0.60 Max.	0.040 Max.	0.040 Max.	-

\* POSFIS : POSCO Fine Drawing Steel

#### ■ Steel for Welding Wire

Product code	Chemical Compositions(%)								
	C	Si	Mn	P	S	Cu	Cr	Mo	Ti+Zr
POSWELD1A	0.15 Max.	0.45~0.75	0.90~1.40	0.025 Max.	0.030 Max.	0.30 Max.	-	-	-
POSWELD1B	0.15 Max.	0.40~1.00	1.00~1.60	0.030 Max.	0.030 Max.	0.30 Max.	0.30 Max.	0.30 Max.	0.15 Max.
POSWELD1C	0.07 Max.	0.40~0.70	0.90~1.40	0.025 Max.	0.030 Max.	0.30 Max.	0.30 Max.	0.30 Max.	0.30 Max.
POSWELD1CM	0.05~0.15	0.30~0.80	0.60~1.50	0.025 Max.	0.025 Max.	0.20 Max.	1.00~1.50	0.40~0.65	-
POSWELD2A	0.06~0.15	0.80~1.15	1.40~1.85	0.025 Max.	0.030 Max.	0.30 Max.	0.30 Max.	0.30 Max.	-
POSWELD2B	0.02~0.10	0.55~1.10	1.40~1.90	0.025 Max.	0.030 Max.	0.30 Max.	0.30 Max.	0.30 Max.	0.30 Max.
POSWELD2J	0.10 Max.	0.55~1.10	1.25~1.60	0.030 Max.	0.030 Max.	0.30 Max.	0.30 Max.	0.30 Max.	-
POSWELD2S	0.08 Max.	0.55~1.10	1.25~1.90	0.030 Max.	0.01~0.03	0.30 Max.	0.30 Max.	0.30 Max.	-
POSWELD4B	0.15 Max.	0.55~1.10	1.70~2.20	0.030 Max.	0.030 Max.	0.30 Max.	0.30 Max.	0.30 Max.	0.30 Max.
POSWELD4D	0.15 Max.	0.50~1.10	1.60~2.10	0.025 Max.	0.025 Max.	0.30 Max.	0.30 Max.	0.40 Max.	0.30 Max.
POSWELD23	0.05~0.15	0.15~0.35	0.80~1.25	0.030 Max.	0.030 Max.	0.35 Max.	0.30 Max.	0.30 Max.	-
POSWELD41	0.15 Max.	0.05 Max.	1.80~2.20	0.030 Max.	0.030 Max.	0.30 Max.	0.30 Max.	0.30 Max.	-
POSWELD50	0.15 Max.	0.05 Max.	1.80~2.20	0.030 Max.	0.030 Max.	0.15 Max.	0.15 Max.	0.15 Max.	-
POSWELD60	0.07~0.17	0.20 Max.	1.65~2.20	0.025 Max.	0.030 Max.	0.30 Max.	0.30 Max.	0.45~0.65	-

\* POSWELD : POSCO Wire Rod for Welding

## Specifications : Chemical Composition

### High Carbon Steel for Micro Cable

Product code	Chemical Compositions(%)						
	C	Si	Mn	P	S	Cu	Cr
POSMICRO62	0.58~0.68	0.10~0.30	0.35~0.65	0.020 Max.	0.020 Max.	0.20 Max.	0.20 Max.

\* POSMICRO : POSCO Micro

### Wire Rod for Cable

Product code	Chemical Compositions(%)						
	C	Si	Mn	P	S	Cu	Cr
POSCABLE82	0.80~0.85	0.80~1.00	0.60~0.90	0.020 Max.	0.020 Max.	0.20 Max.	-
POSCABLE86	0.82~0.89	0.80~1.00	0.60~0.90	0.020 Max.	0.020 Max.	0.20 Max.	-
POSCABLE90	0.88~0.94	1.10~1.40	0.30~0.60	0.020 Max.	0.020 Max.	0.20 Max.	0.15~0.45
POSCABLE92	0.88~0.96	1.10~1.50	0.30~0.70	0.020 Max.	0.020 Max.	0.30 Max.	0.15~0.45
POSCABLE98	0.94~1.00	1.10~1.50	0.30~0.70	0.025 Max.	0.025 Max.	0.20 Max.	0.50~0.95
POSFLEX35	0.32~0.38	0.10~0.35	0.60~0.85	0.025 Max.	0.025 Max.	0.20 Max.	-
POSFLEX62	0.60~0.65	0.12~0.32	0.60~0.90	0.025 Max.	0.025 Max.	0.20 Max.	-
POSFLEX72	0.70~0.75	0.15~0.35	0.60~0.90	0.025 Max.	0.025 Max.	0.20 Max.	-
POSNEPTUNE3	0.94~1.00	1.10~1.50	0.30~0.70	0.025 Max.	0.025 Max.	0.20 Max.	0.50~0.95

\* POSCABLE : POSCO Wire Rod for Cable

\* POSFLEX : POSCO Flexible Pipe, POSNEPTUNE : POSCO Neptune Wire Rod

### Tire Cord Steel

Product code	Chemical Compositions(%)					
	C	Si	Mn	P	S	Cr
POSCORD60M	0.56~0.62	0.10~0.30	0.40~0.60	0.03 Max.	0.03 Max.	-
POSCORD70S	0.67~0.75	0.10~0.30	0.40~0.60	0.03 Max.	0.03 Max.	-
POSCORD70M	0.67~0.75	0.10~0.30	0.40~0.60	0.03 Max.	0.03 Max.	-
POSCORD70D	0.67~0.75	0.10~0.30	0.40~0.60	0.03 Max.	0.03 Max.	-
POSCORD80S	0.78~0.85	0.10~0.30	0.40~0.60	0.03 Max.	0.03 Max.	-
POSCORD80M	0.78~0.85	0.10~0.30	0.40~0.60	0.03 Max.	0.03 Max.	-
POSCORD80D	0.78~0.85	0.10~0.30	0.40~0.60	0.03 Max.	0.03 Max.	-
POSCORD86	0.83~0.89	0.10~0.30	0.40~0.60	0.03 Max.	0.03 Max.	-
POSCORD86CR	0.83~0.89	0.10~0.30	0.40~0.60	0.03 Max.	0.03 Max.	0.10~0.30
POSCORD92CR	0.88~0.95	0.10~0.30	0.20~0.40	0.03 Max.	0.03 Max.	0.10~0.30
POSCORD92SI	0.88~0.95	0.30~0.60	0.20~0.40	0.03 Max.	0.03 Max.	0.10~0.30

\* POSCORD : POSCO Tire Cord Steel

### High Tensile Strength Steel

Product code	Chemical Compositions(%)								
	C	Si	Mn	P	S	Cu	B	Ti	
Class1	PSPC22	0.20~0.25	0.10~0.40	0.70~1.00	0.030 Max.	0.025 Max.	-	50ppm Max.	-
	PSPC30B	0.27~0.32	0.15~0.35	0.60~0.90	0.030 Max.	0.035 Max.	0.25 Max.	5ppm Min.	-
	PSPC32B	0.29~0.34	0.15~0.35	0.60~0.90	0.030 Max.	0.035 Max.	0.25 Max.	5ppm Min.	-
Class2	PSPC35B	0.32~0.38	0.15~0.35	0.60~0.90	0.030 Max.	0.035 Max.	0.25 Max.	5ppm Min.	-
	PSPC30SI	0.27~0.32	1.60~1.90	0.60~0.90	0.035 Max.	0.030 Max.	0.20 Max.	-	-
	PSPC32SI	0.29~0.34	1.60~1.90	0.60~0.90	0.035 Max.	0.030 Max.	0.20 Max.	-	-
Class3	PSPC35SI	0.32~0.38	1.60~1.90	0.60~0.90	0.035 Max.	0.030 Max.	0.20 Max.	-	-
	PSPC32SIB	0.29~0.36	0.50~2.00	0.55~0.95	0.030 Max.	0.025 Max.	0.25 Max.	5ppm Min.	0.01~0.06
	PSPC32SIBM	0.29~0.36	0.50~2.00	0.80~1.20	0.030 Max.	0.025 Max.	0.25 Max.	5ppm Min.	0.01~0.05
	PSPC35SIB	0.32~0.38	0.50~2.00	0.60~0.90	0.030 Max.	0.025 Max.	0.25 Max.	5ppm Min.	0.01~0.06

\* PSPC : POSCO Super Wire Rod Prestressed Concrete

### Bearing Steel

Product code	Chemical Compositions(%)							
	C	Si	Mn	P	S	Cr	Mo	others
POS55CR	0.52~0.60	0.15~0.35	0.60~0.95	0.030 Max.	0.008 Max.	0.10~0.30	0.10 Max.	Cu 0.30 Max. Ni 0.20 Max.
POSWIND100	0.93~1.05	0.50~0.70	1.00~1.20	0.025 Max.	0.008 Max.	1.40~1.65	0.10 Max.	Cu 0.25 Max. Ni 0.30 Max.

\* POSWIND : POSCO Bearing Steel for Wind

### Spring Steel

Product code	Chemical Compositions(%)						
	C	Si	Mn	P	S	Cr	others
POSHIS110	0.56~0.64	0.50~1.00	0.50~0.70	0.025 Max.	0.025 Max.	0.20~0.60	-
POSHIS120L	0.46~0.60	1.20~1.70	0.50~0.80	0.025 Max.	0.025 Max.	0.50~0.80	Nb, V
POSHIS120S	0.50~0.56	1.20~1.60	0.50~0.90	0.020 Max.	0.020 Max.	0.50~0.80	Cu, Ni, Ti, V
POSHIS125	0.51~0.57	1.40~1.70	0.55~0.80	0.017 Max.	0.017 Max.	0.60~0.80	Cu, Nb, B, Ni, Ti, V
POSHIS125RC	0.46~0.54	1.30~1.70	0.30~0.60	0.017 Max.	0.017 Max.	0.20~0.40	Cu, Nb, Ni, Mo, V

\* POSHIS : POSCO High Strength Spring Steel

### Free-cutting Steel

Product code	Chemical Compositions(%)				
	C	Si	Mn	P	S
POSGRAM70	0.67~0.73	2.20~2.50	0.15~0.35	0.035 Max.	0.040 Max.

\* POSGRAM : POSCO Graphite Steel for Machinability

## Specifications : Chemical Composition

### ■ Steel for Spark Plug

Product code	Chemical Compositions(%)					
	C	Si	Mn	P	S	S-Al
POSCH6ASP	0.08 Max.	0.07 Max.	0.25~0.45	0.040 Max.	0.050 Max.	0.02 Min.

\* POSCH6ASP : POSCO Cold Heading, 600MPa, Al Killed, Spark Plug

### ■ Weather Resistance Steel

Product code	Chemical Compositions(%)									
	C	Si	Mn	P	S	S-Al	Cu	Ni	Cr	
POSTEN30W	0.33~0.38	0.15~0.35	0.65~0.95	0.030 Max.	0.030 Max.	0.01~0.06	0.20~0.50	0.20~0.50	0.60~0.90	

\* POSTEN30W : POSCO Tensile, Carbon, Weathering

### ■ Non Heat treatment Steel

Product code	Chemical Compositions(%)											
	C	Si	Mn	P	S	S-Al	Ni	Cr	Ti	V	others	
POSMA45R	0.43~0.47	0.20~0.40	1.10~1.50	0.030 Max.	0.03~0.06	0.01~0.07	0.20 Max.	0.15 Max.	0.03 Max.	0.11 Max.		
POSMA45RM	0.43~0.47	0.15~0.35	1.10~1.40	0.030 Max.	0.03~0.07	0.01~0.07	0.20 Max.	0.25 Max.	0.04 Max.	0.07 Max.		
POSMA45RS	0.43~0.47	0.15~0.35	1.10~1.40	0.030 Max.	0.03~0.07	0.01~0.07	0.20 Max.	0.25 Max.	0.04 Max.	0.07 Max.		
POSNH4	0.02~0.07	0.20 Max.	0.30~0.60	0.030 Max.	0.030 Max.	0.01~0.07	0.10 Max.	0.10 Max.	-	-		
POSNH6	0.06~0.12	0.10~0.30	0.50~0.80	0.030 Max.	0.030 Max.	-	0.10 Max.	0.30~0.50	-	-		
POSNH9S	0.23~0.29	0.10~0.30	1.30~1.60	0.030 Max.	0.030 Max.	0.01~0.07	0.10 Max.	0.10~0.30	-	0.05~0.20	Nb : 0.005~0.02	

\* POSMA : POSCO Micro Alloyed, POSNH : POSCO Non Heat Treatment

### ■ Low-alloyed Steel

Product code	Chemical Compositions(%)								
	C	Si	Mn	P	S	B	Cr	Ti	
POSA1021B	0.18~0.23	0.30~0.50	0.50~0.80	0.035 Max.	0.040 Max.	5ppm Min.	0.30 Max.	0.07 Max.	
POSA1022B	0.18~0.23	0.15~0.30	0.70~1.00	0.020 Max.	0.020 Max.	5ppm Min.	0.25 Max.	0.01~0.05	
POSA1038B	0.34~0.42	0.10~0.30	0.60~1.20	0.030 Max.	0.040 Max.	5ppm Min.	0.35 Max.	-	
POSA15B24H	0.22~0.28	0.15~0.35	0.90~1.20	0.025 Max.	0.025 Max.	5~30ppm	0.10~0.20	0.01~0.03	
POSA5120BH	0.17~0.22	0.15~0.35	0.70~0.90	0.035 Max.	0.040 Max.	10~40ppm	0.70~0.90	0.02~0.05	

\* POSA : POSCO Automobile

## Manufacturable Dimensions

### ■ Available sizes

Wire Rod Mill	Unit	Size(mm, inch)																			
		4.5	5.0	5.5	-	6.5	7.0	-	8.0	8.5	-	9.0	-	10.0	-	11.0	-	12.0	-	13.0	-
#1 Wire Rod Mill	mm	4.5	5.0	5.5	-	6.5	7.0	-	8.0	8.5	-	9.0	-	10.0	-	11.0	-	12.0	-	13.0	-
	inch	0.177	0.197	0.216	-	0.256	0.276	-	0.315	0.335	-	0.354	-	0.394	-	0.433	-	0.472	-	0.512	-
#2 Wire Rod Mill	mm	14.0	15.0	16.0	-	17.0	18.0	-	19.0	20.0	-	21.0	-	22.0	-	23.0	-	24.0	-	-	-
	inch	0.551	0.591	0.630	-	0.669	0.709	-	0.748	0.787	-	0.827	-	0.866	-	0.906	-	0.945	-	-	-
	mm	25.0	26.0	27.0	-	28.0	30.0	-	32.0	34.0	-	38.0	-	42.0	-	45.0	-	55.0	-	-	-
	inch	0.984	1.023	1.063	-	1.102	1.181	-	1.260	1.339	-	1.496	-	1.654	-	1.772	-	2.165	-	-	-
#3 Wire Rod Mill	mm	5.5	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	12.0	12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.0
	inch	0.216	0.256	0.267	0.295	0.315	0.335	0.354	0.374	0.394	0.413	0.433	0.472	0.492	0.512	0.531	0.551	0.571	0.591	0.610	0.630
#4 Wire Rod Mill	mm	5.5	6.5	7.0	7.5	8.0	8.5	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0
	inch	0.216	0.256	0.267	0.295	0.315	0.335	0.354	0.394	0.433	0.472	0.512	0.551	0.591	0.630	0.669	0.709	0.748	0.787	0.827	0.866

Remarks) The available sizes are subject to change. Please consult with the POSCO representative before ordering.

### ■ Coil Dimensions

Division	Diameter (mm/inch)	Coil Weight		Min. Inner Dia. / Max. Outer Dia. / Max. Length		Coil Direction
		lbs	Kg	mm	inch	
#1 Wire Rod Mill	4.5~13.0/ 0.177~0.512	4,400	1,300~ 2,000	850/1500/1900		Counter clock wise
#2 Wire Rod Mill	14.0~55.0/ 0.551~2.165			850/1700/1900		
#3 Wire Rod Mill	5.5~16.0/ 0.216~0.630			850/1500/1900		
#4 Wire Rod Mill	5.5~22.0/ 0.216~0.866			850/1250/1900		

## Product packaging and Shipping

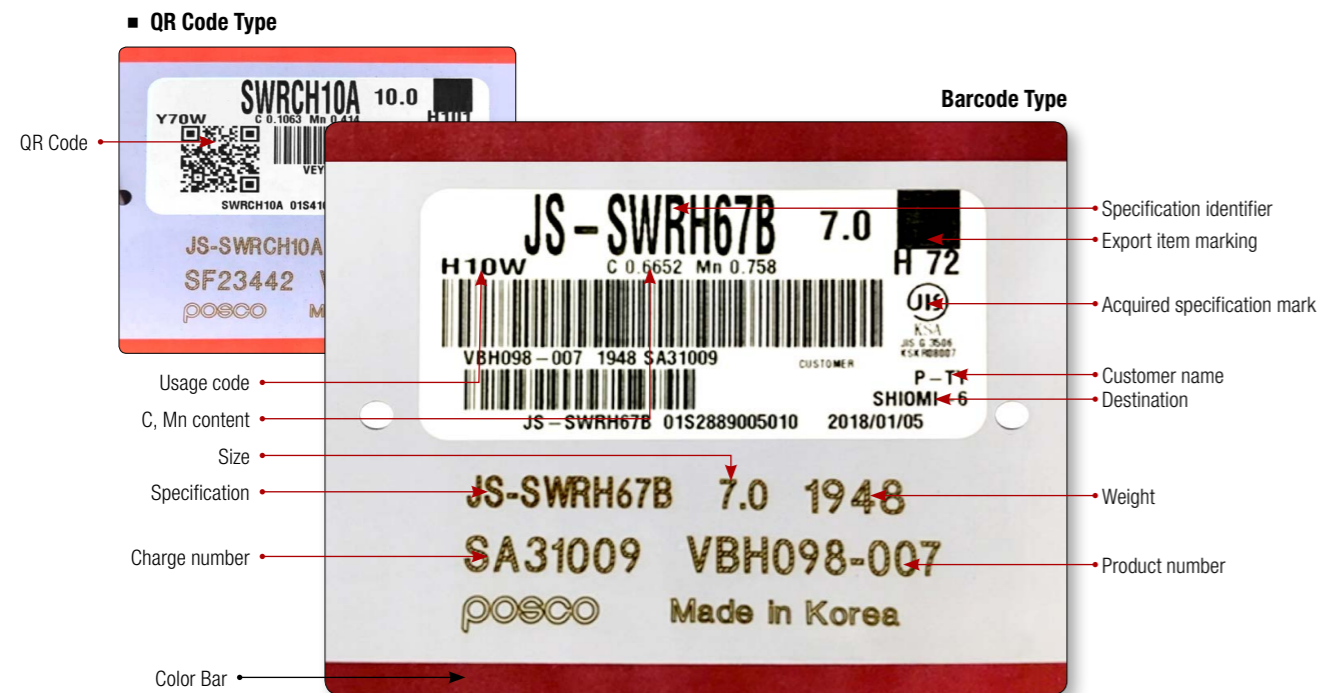
### Product packaging

In order to avoid Various damages that can occur during the shipping and handling process, POSCO has adopted the following proven packaging methods. Upon customer request, pre-order information or consultation shall be provided.



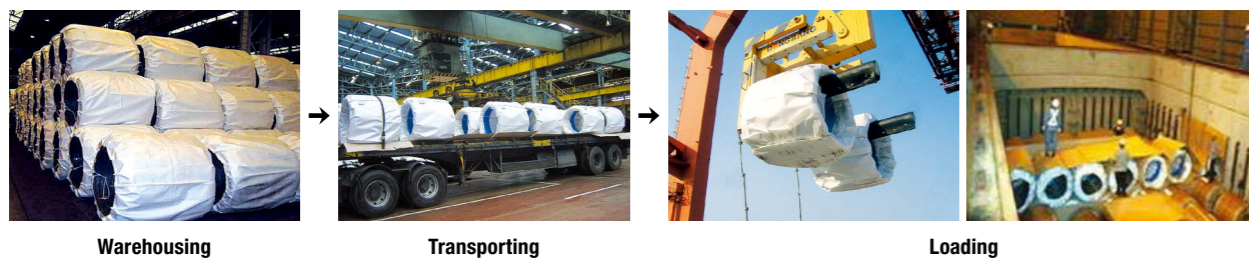
### Labeling

To provide increased visibility and positive product identification, a resin label with white background is added after the pickling process. Also, a steel tag laser marking is applied as well, in case the resin label should be damaged during a subsequent heating process.



### Damage prevented during shipping and handling processes

In order to prevent damages that could occur after wire rod rolling, POSCO uses special equipment and standardized work processes throughout packing, warehousing, transporting and loading.




# WIRE ROD

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