

LS Copper Wire Rod



Leading Solution

LG Cable, LG Industrial Systems and LG-Nikko Copper, Gaon Cable, E1 and Kukdong City Gas are starting with a new name, Leading Solution, LS.

New Dream, New Start

To become a leader in the competitive global market, LG has been divided into three groups, electronics and chemicals for LG, energy and distribution for GS, Industrial electric \cdot electronics and material for LS based on their business specialties.

LS' main companies, such as LS cable, LS industrial systems, LS-Nikko copper, Gaon cable, E1 and Kukdong City gas, are ranked as No.1 in their respective industry. However, LS won't just sit back, satisfied with being the best in Korea. We will pave the way for becoming the world's best in Industrial electric \cdot electronics and material industry with the new CI, LS.

Your good partner LG Cable is making a fresh start as LS Cable

LS Cable is No. 1 cable maker in Korea and its business fields are telecommunication, electric power, components & materials and machinery. Also, LS Cable is creating new businesses particularly in component and materials industry. LS Cable makes its best to accomplish the vision, 'Your No.1 Creative Partner' and be one of the world leaders with high technology and best level of service.



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To address the ever-changing demands in everyday life as well as in the industry, LS Materials, a division of we never stop researching, designing, developing, and manufacturing products with the higher level of quality.

Our quality control meets the most delicate requirements of international standards and the high level of quality is recognized both by local and international clients: LS Materials is the leading manufacturer and supplier in the market.

Our commitment to develop and deliver solutions to address our customers needs and challenges keep our technology on the cutting edge and our know-how in the field more valuable, which our clients highly appreciate.







Milestones

2005 Certificate Quality assurance system; ISO 16949 Launched 2002 Certificate Quality assurance system; ISO 14001 Launched 1997 Certificate Safety & Health management system; KOSHA 18001 1996 Up-Grade SCR Line to 270,000 MT/Year 1996 Up-Grade SCR Line to 240,000 MT/Year 1994 Certified Quality assurance system as per UL ISO 9001 Launched 1993 Computerized Automatic process control system 1991 Computerized quality assurance system 1988 Up-Grade SCR Line to 180,000 MT 1980 Commisioning Southwire SCR Line With 98,000 MT/Year

1 RELISTANTIA BOR-COPPER ROD SCR: COPPER ROD 6209049 101 NO. 8.00MM 7 2/SIZE 4205 Kg 3589/GIV. 4175 Kg 3589/DATE 7206 - 02 - 09 7259/DATE 7259/DATE 75209049* LOT NO. 8.0MM 7. 21/SUE 4205.Kg 8.80MM 8.80 15 cable 6209049 7 2.92 8.0MM ^E 4205Kg UN 355 G.M. 1175.Kg

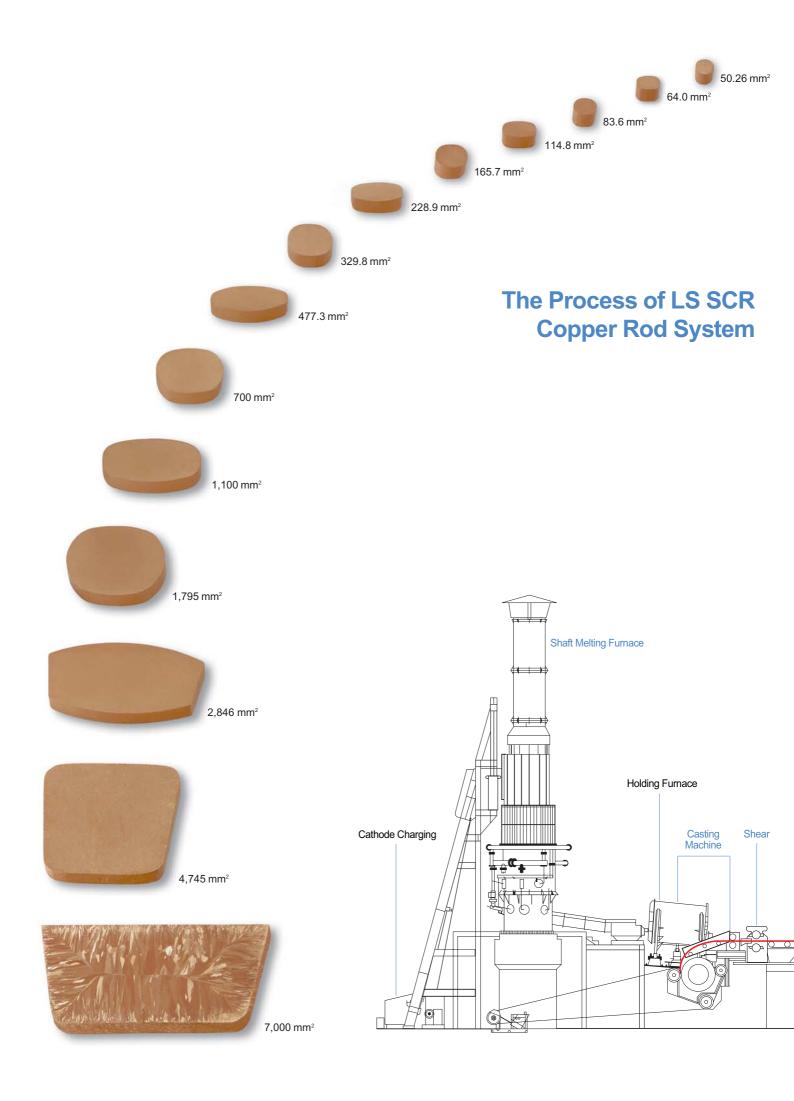
Special Features

LS Materials produces copper wire and rod with a standard diameter from 2.6mm to 23.0mm, which has following features :

- Uniform microstructure with smooth surface
- · Well-controlled oxygen content level and dispersion
- Customer-oriented quality control
- Total solution for minimum wire breaks
- Prompt and Just-In-Time delivery system

Supported by the excellent features above, our clients rarely experience wire breaks, which could deteriorate the performance and cause the loss of time in the process of production. The best excellency in drawability of our products is proved in the real world practice by many of our clients, who use multi-drawing machine to make flexible conductor for automotive wire under high speed with rare wire breaks.

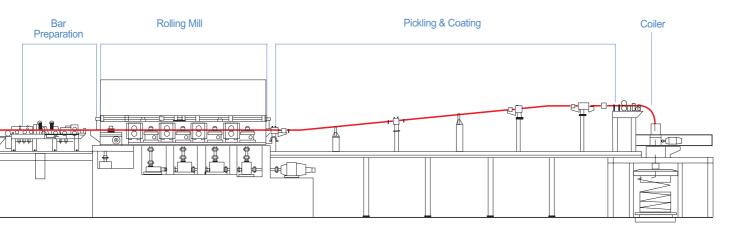




Quality Control & Assurance

Equipped with the Southwire Continuous Rod System, LS Materials holds a certificate compliant with the following standards : ISO 14001 and ISO 9001 and we are proud to be a Sony Green Partner. Our quality management features in :

- High quality copper cathode (Selected brand of LME Grade 'A')
- Computerized operation for optimum parameter control
- . In-line detector for whole length quality assurance
- · Destroy test by sampling for every six coils
- Total Production Maintenance for highly efficient facility condition



Standards

KSC 3133, ASTM B49/92 and customers' requirements

Dimension & Application

Diameter (mm)	Application
*2.0	Ultra super fine enameled wire
**2.6	Automotive wire / Enameled wire
8.0	Automotive wire / Enameled wire / Communication cable / Power cable
9.5	Strip flat wire
12.7	Strip flat wire
18.0	Strip flat wire / Trolley wire
23.0	Trolley wire

* Shaved drawn copper wire

** Drawn copper wire (Hard / Annealed)

Mechanical Properties

Elongation : Min. 30% Tensile strength : 23.46 Kg/mm² (for reference)

Electrical Properties

Resistivity : Max 0.15328 $\alpha \cdot g/m^2$ at 20 c Conductivity (at 20 c) : Min. 100% IACS

Chemical Properties

Cu purity : Min. 99.90% (Typically 99.97%)

Chemical Composition

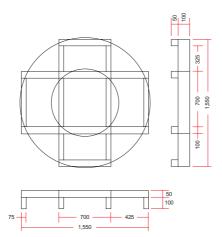
	Fe	Ni	Zn	Mn	Со	Sn	Pb	Bi	Sb	Те	Ag	As	Cr	S	Max.	O2
ASTM B49/92	10	10	-	-	-	5	5	1	4	2	25	5	-	15	65	100-650
Typical (ppm)	6.9	0.2	0.3	0.3	0.2	0.2	0.6	0.1	0.2	0.1	5.2	0.2	0.1	5	19.6	263

Coiling & Packing

Orbital Coiling System presents the solution of the tangling problem even higher drawing speed than 1,000 meter per minute. Packing with highly controlled system can prevent oxidization during transportation and keep the goods with shiny and smooth surface.

8.0mm

- Coil weight : Max. 4.5 metric tons per pallet (20 metric tons per 20-foot container)
- Inside diameter : 950 mm
- Outside diameter : 1,600 mm
- Height : 700 mm
- Dimension of pallet : 1,550 x 1,550 x 150 (H) mm





2.6mm

- Inner Box Size : 650 X 650 X 1,750 mm Type : 700G / Octagon-SF
- Outer Box Size : 1,120 X 1,120 X 1,750 mm Type : 700G / Octagon
- Net Weight : Max. 1,800 kg

