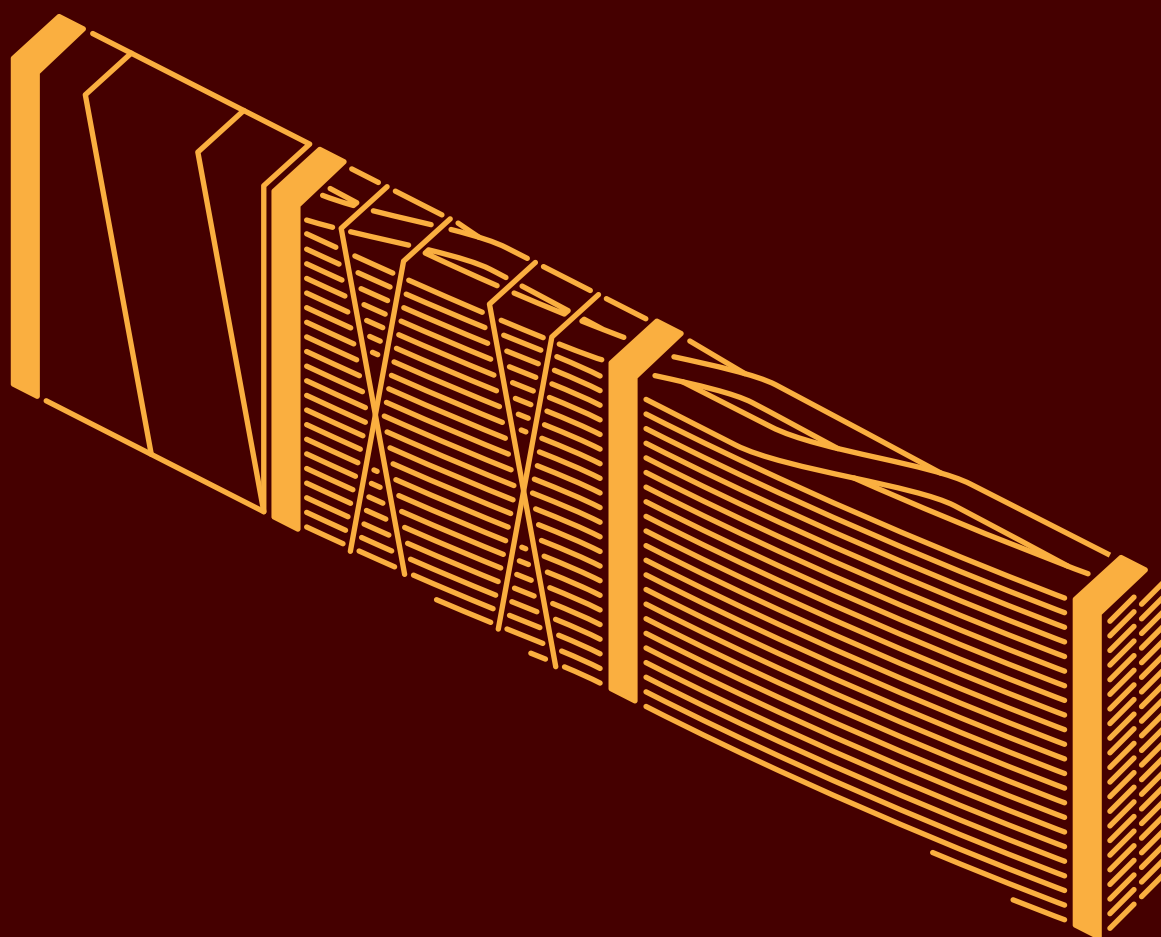


Sam Dong

WHEREVER THERE IS ENERGY THERE IS SAM DONG



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The history of Sam Dong

Sam Dong was founded 1977 in South Korea and today manufactures various types of winding wires, including Continuously Transposed Conductors (CTC), Enameled Rectangular Copper Wire (Magnet Wire), Paper Insulated Rectangular Copper Wire, Bare Rectangular Copper Wire as well as Rectangular and Round Aluminium Wire.

Sam Dong has developed many speciality processes, including the production and use of OFHC (Oxygen Free High Conductivity Copper) for critical magnet wire applications.



Wherever there is energy, there is Sam Dong

Sam Dong provides the highest quality magnet wire products and services. We manage all aspects of our business to build positive relationships, promote healthy work environments, and develop energy products that will benefit all of society.

Sam Dong's product usage

- Stator Coils of Turbine Generators, which is the heart of a Generating Plant.
- Winding Coils of Power Transformers for Transmission Sites and Distributing Stations.
- Winding Coils of Motors, Home Appliances, Cooling Appliances, TV Monitors, Electronic Ovens and Motors for Railway Vehicles.
- In addition they are used in the automobile industry, medical equipment industry, air & space industry and the national defence industry, etc.



Engines



Automobile Industry



Airplanes



Generators



Transformers



Home Appliances



Railway Vehicles



Coils



National Defence Industry



Electric Devices



Turbines



Heat Resistant



Medical Equipment



Nuclear Power
Generators



Space Industry

Oxygen Free High Conductivity Copper

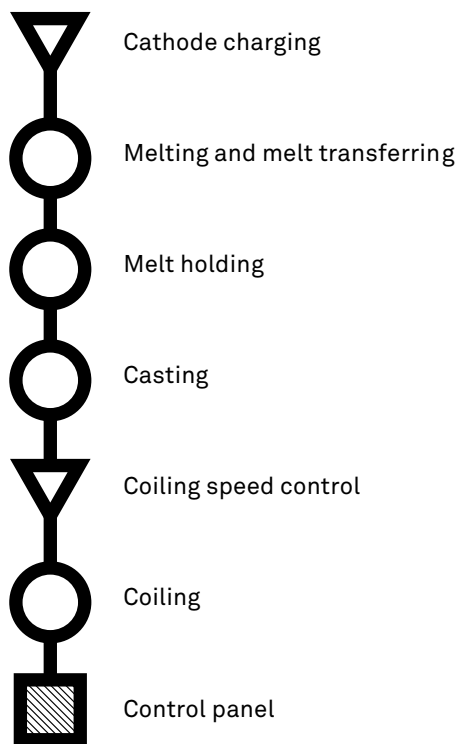
OFHC is produced by the direct conversion of refined high quality Copper cathode, LME Grade A (Purity 99.99%), by melting & casting under strictly controlled conditions with CO gas deoxidization method in order to prevent air exposure during processing.

OFHC insures extra high grade of copper wire by oxygen contents of less than 10 ppm (ASTM Standard). OFHC has higher electrical & thermal conductivity, higher recrystallization temperature and workability than normal copper rod.

The application of OFHC is widely spread over electrical & electronic equipment which requires high efficiency, accurate and durable material. Sam Dong has been manufacturing OFHC by UP-CAST process and supplying high quality copper wire for ultra high voltage transformer winding coils according to the Customer's requirements.

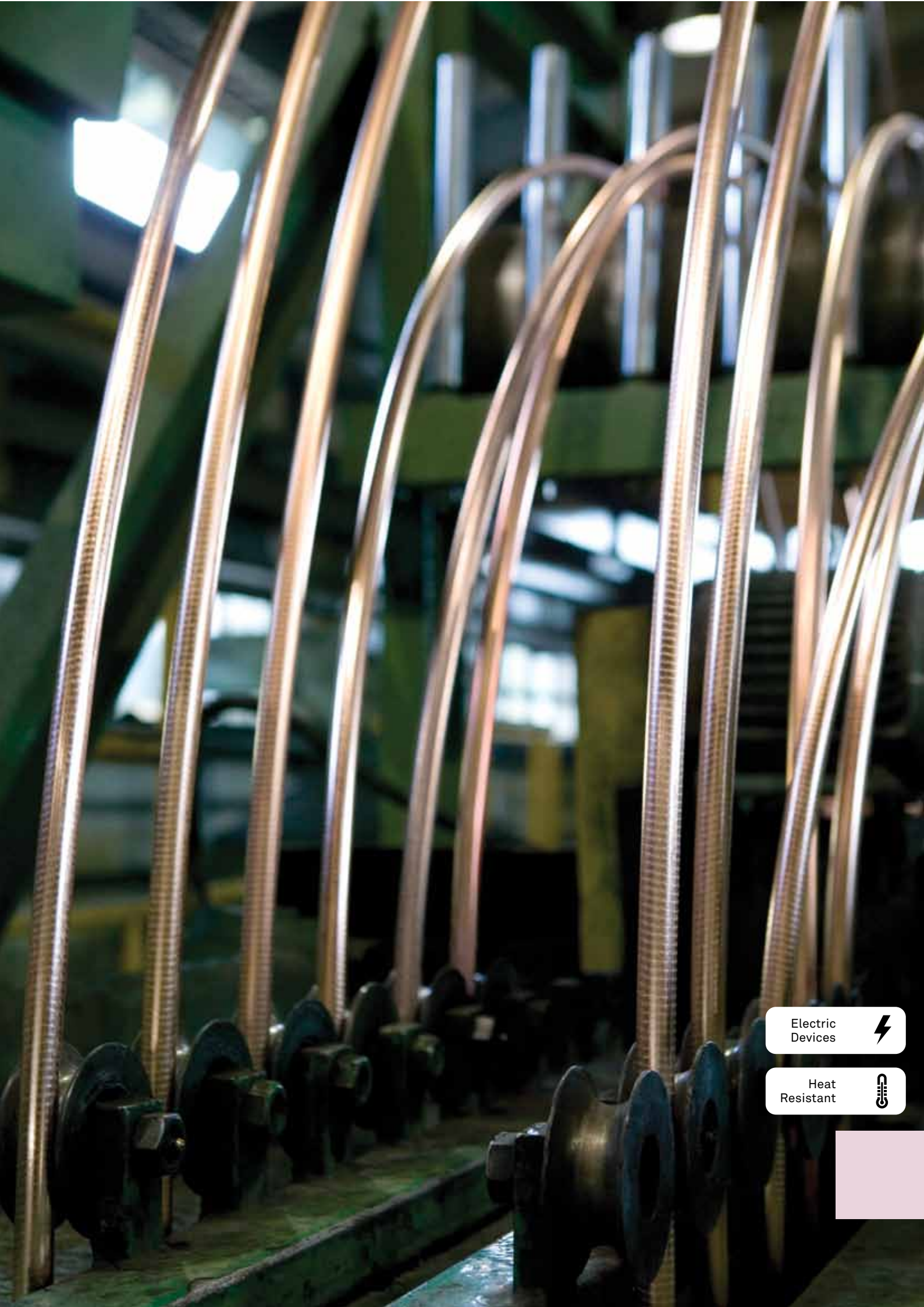


OFHC Process



Advantages

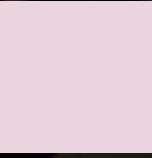
- Little copper dust which occurs from the Oxide of Cu_2O , CuO etc.
- Excellent electrical & thermal conductivity
- Good workability
- Excellent long term resistance to hydrogen embrittlement under high hydrogen atmospheres
- Indispensable material in the electrical and electronic industries
- High heat resistance and impact strength



Electric
Devices



Heat
Resistant



Bare Round and Rectangular Conductors

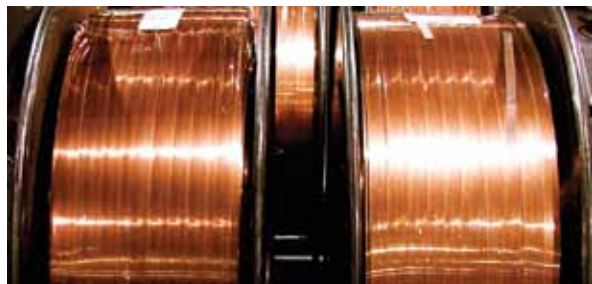
Silver Bearing Copper

Silver bearing copper is used in commutators for many types of motors and also in special anneal resistant applications for transformer windings.



Bare Copper Conductors

Sam Dong has been supplying both bare rectangular wire and bare round wire in accordance with every requirement of customer's specification. Bare rectangular wire is used in welding machines, motors, railway traction equipments and electronic products.





Engines



Automobile
Industry



Railway
Vehicles



Electric
Devices



Continuously Transposed Conductors



Continuously Transposed Conductors (CTC) consist of number of enameled rectangular wire (5~84 strands) made into an assembly.

Each strand is transposed in turn to each position in the cable and is then covered with layers of insulation paper or film. Continuously Transposed Conductors are used in winding wires for medium and ultra high power transformers.

Sam Dong's CTC is manufactured by OFHC copper and indeed, is able to supply polyester roped CTC which has been designed to reduce production cost, oil pocket and improve cooling efficiency. Hardened type CTC (CPR1, CPR2, and CPR3: BS1432) and Self-bonding CTC which can be used to improve mechanical and electrical strength are also available.

Advantages

- Shortened winding time for transformer
- Decreased size and cost of transformer
- Reduced electrical losses
- Excellent winding ability and simple handling
- Improved mechanical strength of winding (Self- Bonding CTC)





Transformers



Paper Insulated Rectangular Wires



Paper Insulated Rectangular Wire is the principle type of conductor used for winding coils of transformers, welding machines and other electrical equipment.

Sam Dong uses the type of insulating paper and method of insulation in accordance with international standard as well as customer's requirements, and has supplied the wire with various insulating paper such as Kraft paper, Thermally upgraded Kraft paper, Crepe paper, Nomex paper etc. as specified.





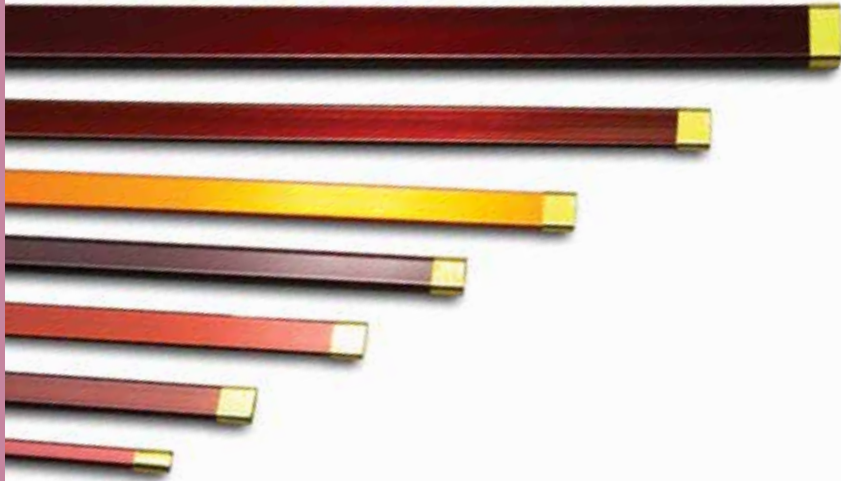
Electric
Devices



Transformers



Enameled Rectangular Wires



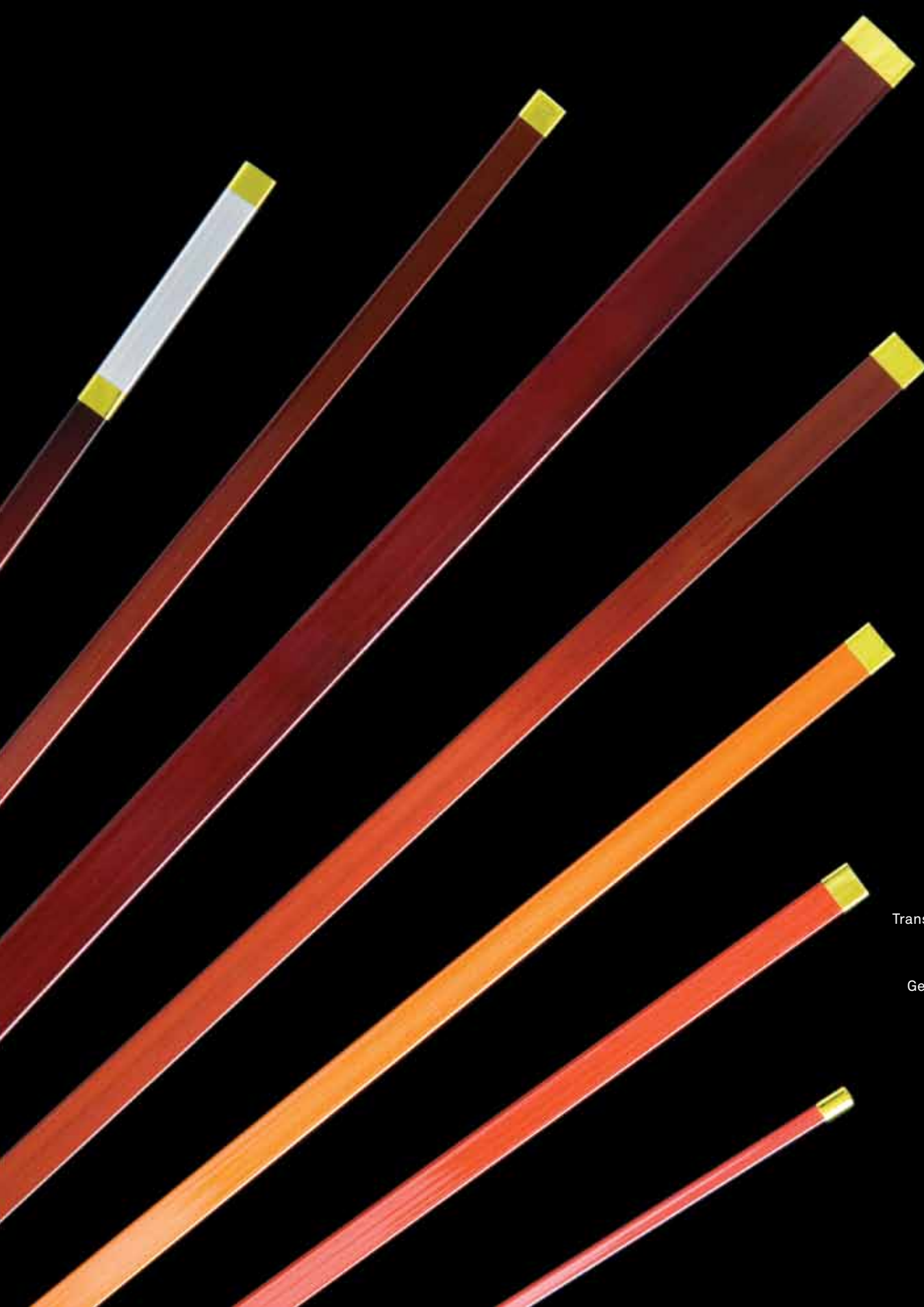
Enameled Rectangular Wire is coated by the various enamel films on the bare conductor in accordance with customer's specification.

This important wire is used for winding coils for DC motors, transformers, generators, welding machines and other applications.

Sam Dong has been supplying the various type of enameled rectangular wires in accordance with customer's requirements.

Sam Dong is also available to manufacture very thin & narrow rectangular copper wire which is used in driving motor and so on of automobiles.





Engines



Transformers



Generators



Electric
Devices



Special Insulated Rectangular Wires



Special insulation materials, such as Glass yarn, Polyester-Glass yarn and Kapton, are lapped on bare conductors/tube or enameled wire for both rectangular and round wire and then, impregnated with epoxy.

With the partially cured epoxy - insulating material after winding, the wires are adhered to each other during processing in the baking oven to provide a very strong finished product. This special insulated rectangular wires are used for generators and special motors which require superior heat and vibration resistance.

Single or Double Glass Yarn Insulated Rectangular Wire

Non-Alkali glass yarn (E class) has superior physical characteristics and heat resistance and is used for nuclear power generators and traction motors.

Polyester-Glass Yarn Insulated Rectangular Wire

Polyester-glass yarn has excellent physical characteristics, superior heat resistance and especially superior flexibility thus it is predominantly used for stator coil of turbine generator.

Mica Covered Rectangular Copper Wire

Mica-Polyester compounds generally comprise Mica paper on which a polyester film coat (PETP) is spread using an epoxy resin. Mica paper is a type of paper composed only of small strips of Mica with no admixture or bonding material (100% Mica).

Sam Dong supplies a comprehensive range of mica covered rectangular copper wires that are extensively used in the electrical and electronic industry. Our range is available in various standard as well as customized specifications at industry leading places.

Mica or PET + Mica Covered Rectangular Copper Wire is suitable for class 'F' (155°) insulation and it is applicable for manufacturing fields as below.

Application of Mica Covered Rectangular Conductors:

- High & Low Voltage Motors
- Generator windings
- Dry Type Transformers

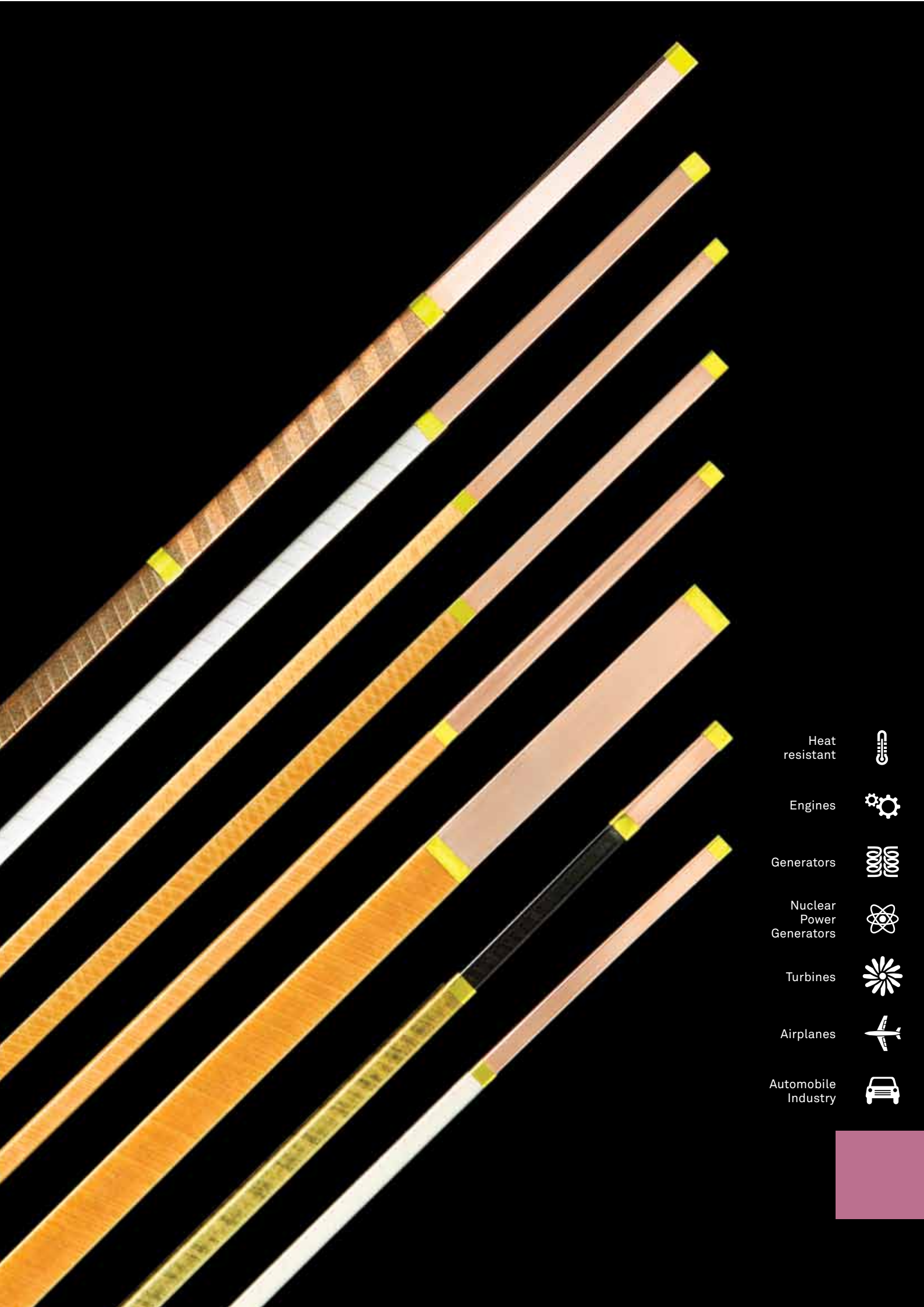
Enamel - Glass Yarn Insulated Rectangular Wire

Enamel-glass yarn insulated rectangular wire is enameled, covered by glass yarn then , impregnated with epoxy. Such a wire is mostly used for generators as well industrial motors, designed for high thermal and mechanical loads at high operation voltages.

Kapton Insulated Rectangular Wire

Kapton (Polyimide film) insulated rectangular wire is designed for use in applications involving high operating thermal & voltage and such wire is used in aerospace and automotive applications, relays and traction motors etc.





Heat
resistant



Engines



Generators



Nuclear
Power
Generators



Turbines



Airplanes



Automobile
Industry



Copper Strips and Copper Shapes Products

Sam Dong is a world-leader in metal fabrication, component manufacturing and related engineering and design services. Our involvement in our customers business often goes beyond just supplying material. Many of our greatest successes come from forging what we call 'wherever there is energy there is Sam Dong'. We like to understand what our customers are trying to achieve and become a part of their efforts.

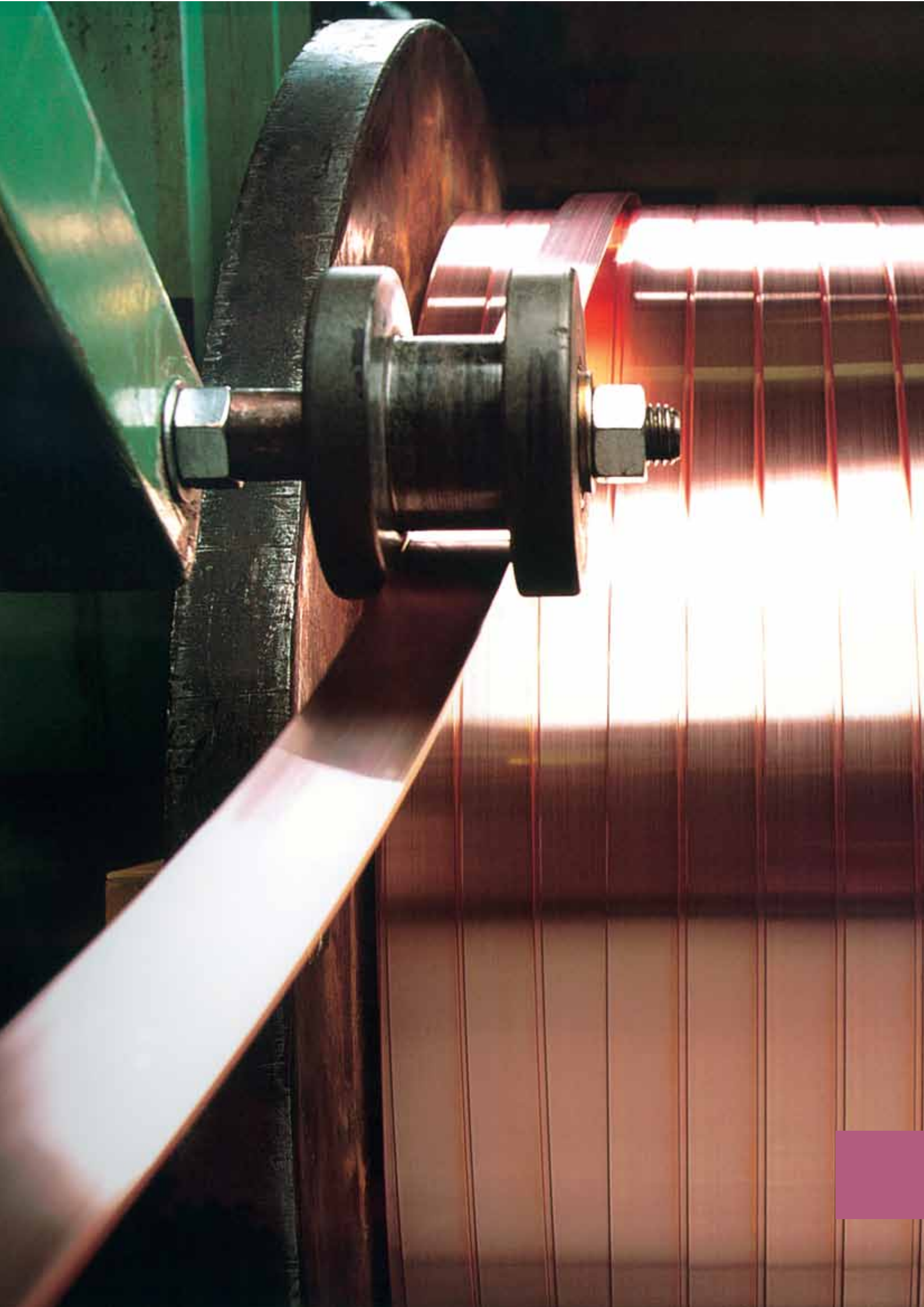
At Sam Dong Ohio, the broad range of products and services we supply, as well as our open-minded, result-oriented and delivery focused approach, have brought success, savings and efficiency to many customers.

Sam Dong Ohio produces various types of copper products. We classify our products in the following product offerings.

- Cast Rod
- CRW (Copper Rod & Wire)
- CMP (Copper Metal product)
- CNS (Copper Narrow Strip)

We cast only OFHC (Oxygen Free High Conductivity Copper), which is proven to perform better and have fewer impurities than ETP (Electrolytic Tough Pitch) copper. We are fully integrated with cast stations, drawing machines, and rolling mills, which allow us to offer various types of copper products with the best quality and shortest delivery time to our customers.





Other Products



Transformer Lead Cable (Stranded Copper Wire)

Sam Dong Ohio, Inc produces Insulated Copper Stranded Wire and is also called Lead Wire. This Lead Wire is composed of a bundle of small-gauge wires to make a larger conductor and we will insulate paper on it according to customer's request. We have available electric insulated paper, Crepe paper and others.

Application

- It is used for connection and lead for oil filled transmission & distribution transformers

Type

- Rope-Lay Stranded Copper conductors
- Concentric Stranded Copper Conductors

Benefits

- Sam Dong Produce lead wire with high conductivity& burr free.

We use OFHC (Oxygen Free High Conductivity Copper) to produce it and E.T.P is also available upon customer's request.

Solar Wire

Solar Wire is transfer path of electricity which is created from single crystal or poly crystal PV Cell and connects electrodes between PV cells and it is used for solar module which is made possible to transfer connected electricity with maximum efficiency.

Sam Dong solar wire is manufactured with OFHC (Oxygen Free High Conductivity Copper) of superior conductivity and make possible to manufacture high efficiency solar module and to get customer's equipment characteristics. Sam Dong is also able to manufacture solar wire of lead free solder.



Enameled Round Wires (Magnet Wire)



Magnet wire is wound in a form of coil at the core inside of electric-electronical appliances and has the function of converting electrical energy into mechanical energy. It is widely used in most of electrical appliances such as Heavy electric, Automobile & Home appliance industry etc.

Sam Dong has been supplying various type of magnet wire in the newest automatic facilities to meet every requirement of customers and also, supplies multiple coated wire which is made of several kinds of enamel varnish, providing high thermal index (AI over-coated), good abrasion characteristics (NY over-coated), self-bonding (SB over-coated) and self lubricated (SL over-coated).

In addition, Sam Dong has an “In-line tester” on the enamel coating plants to provide continuous and stable quality.

The In-Line coating machine can do drawing and enamel coating at the same time so that enable to have a merit on the manufacturing process as well as satisfied quality level such as excellent electric resistance and stable wire tension.





Electric
Devices



Automobile
Industry



Home
Appliances



Laboratory Inspection and Quality Assurance

Sam Dong has been developing and producing high quality products with the most advanced technology and quality control systems.

Sam Dong as one of leading magnet wire (Rectangular & Round) manufacturers, has the testing laboratory which is equipped the most modernized and accurate testing facilities.

All products are controlled from raw material to final packing by maintaining excellent quality systems through routine and type test as per the customer's requirement and applicable international standards.

Furthermore, Sam Dong assures high quality of new product by submitting with various reliability test.

Sam Dong's well-developed resources enable us to supply our customers continuously with high-quality, reliable products and better services.

Quality Assurance

Sam Dong policy is to actively meet all contract specification in addition to satisfying the need of every customer.

Sam Dong's quality assurance systems are designed, organized according to ISO 9001 and implemented to ensure its strict standards for quality.

Sam Dong has been supplying since 1977 to customers world wide with high-quality, reliable products and better services. Also, our effort will be continued for increasing customer's benefit.

Certificate and estimate

- ISO 9001
- ISO 14001
- UL
- KS

Certificates

Eumseong Entity



Eumseong Entity



Tennessee Entity



Mungyeong Entity



Mungyeong Entity



Mungyeong Entity



Ohio Entity





Contact Information and Maps

Eumseong Head Office & Entity

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E-Mail: sales@samdongkorea.com

Address: (369-820), San39, Samho-ri, Daeso-myeon, Eumseong-gun, Chungbuk, South Korea

Products: O.F.H.C, C.T.C & various type of insulated Rect. Wires (Enamel, Paper etc.)

Website: www.samdongkorea.com



Mungyeong Entity

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Fax: +82 (0)54 571 4115

E-Mail: sales@samdongkorea.com

Address: (745-860) Maseong Industrial Complex, 884, Ocheon-ri, Maseong-myeon, Mungyeong-si, Gyeongbuk, South Korea

Products: Various Enamel wires (PVF, UEW, PEW, EI+AIW, AIW etc.), O.F.H.C, Solar Wire, Mica Covered Rect. Wire, Kapton & Glass-Yarn Rect. Wire

Website: www.samdongkorea.com





Tennessee Entity

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E-Mail: sales@samdongamerica.com

Address: 300 Industrial Park Drive,
Rogersville, Tennessee, 37857, USA

Products: C.T.C & various type of insulated
Rect. Wires (Enamel, Paper etc.)

Website: www.samdongamerica.com



Ohio Entity

Tel: +1 (0)740 363 1985

Fax: +1 (0)740 363 3847

E-Mail: sales@samdongohio.com

Address: 801 Pittsburgh Drive, Delaware,
Ohio, 43015, USA

Products: Rounds (O.F.H.C Rod), Shapes and Profiles,
Narrow strip, Micromill and Cast Wire, Transformer
Lead Cable, Kapton & Glass-Yarn Rect. Wire

Website: www.samdongamerica.com



