



Copper City Company

Copper City Company is established in United Arab Emirates (Dubai), aiming to develop and upbringing electricity industry and optimal usage of country underground sources and improving copper and aluminum production industry to obtain more added value.

The main activities of this company are:

1. Supplying raw material of the country electricity industry
2. Investment in the electricity industry development
3. Production of copper and aluminum and their alloys semi-manufactured products

We have managed to present high quality products in accordance with world standards to civil and foreign markets of wire and cable, transformer, electricity post, distribution panel and other related industries.

Outlook:

Developing copper and aluminum industry prospecting economical independency, ranking as the fifth superior company in The Middle East

Mission:

Supplying the raw materials of electricity industries and developing copper and aluminum semi-manufactured products in the country by benefiting from specialists and experts and using the cutting edge technology to create more added value for the stockholders and the employees

Target:

1. Fulfilling the commodity basket of the raw material of copper and aluminum products of electricity industry
2. Accomplishing the copper production circuit from the mine to the semi-manufactured products
3. Developing export by promoting the quality and diminishing the full-price
4. Extending loyal customers
5. Increasing and promoting employees' training as the main assets of the company

Values:

- Attempt to create a safe and serene environment for commercial and economical activities.
- Attempt to protect the living environment by spoiling green technologies.
- Managing according to ethics and commercial values

Strategies:

Aim to becoming a known brand in The Middle East

INTRODUCTION



PRODUCTS

PRODUCTS AND STANDARDS:

· Copper Rod:

Shape and Dimension:

The non-welded copper rod produced by Upcast method wrapped in coil non-welded

Product	Dia. (mm)	Coil weight (kg)
Copper rod	8,10,15,16,20,25	3,500

Chemical composition:

Alloy	Denomination	Copper (%)	Oxygen (max ppm)	Standard conformance			
				American	Chinese	Europe	Japanese
				ASTM(B49)	GB	EN(1966)	JIS
CU-OFE	Oxygen-free	99.99	5	C10100	TU2	CW009A	C1011
CU-OF	Oxygen-free	99.95	5	C10200	TU1	CW008A	C1020

Mechanical properties:

Product	Electrical Conductivity (IACS)	Tensile Strength (N/mm ²)	Elongation (Min%)	Ductility (mm)	Mean size (mm)
Copper rod	101%	240	28	0.19	0.05

Packaging:

Packed on 1.5 x 1.5 wooden pallets.


Usage:

Power transmission and power distribution, copper conductors and cable industry.

● Copper & Aluminium sections:

Busbar

Shape and Dimensions:

Thickness (mm)	Width (mm)	Length (m)	Shape
3-20	20-170	≤10	



Coil:

Thickness (mm)	Width (mm)	Length (m)
2-20	20-170	No limitation



Rod, Square bar, Hexagonal, Round bar

Shape	Dimensions {mm}	Length {m}
Rod	8-80	Up to 10
Square rod	3-50	
Hexagonal rod		
Earth rod	16&20	



Small sizes are spool-coiled
 Any profile or special section is producible due to order
 All above products can be produced tin-coated

Technical specifications and standards:

The non-welded copperwires produced by Upcast method wrapped in coil non-welded

Alloy	Main Element (%)	Standard conformance			
		American ASTM(B49)	Chinese GB	Europe EN(1966)	Japanese JIS
CU-OFE	Cu: 99.99(min)	C10100	TU2	CW009A	C1011
CU-OF	Cu: 99.95(min)	C10200	TU1	CW008A	C1020
Al	Al: 99.7 (min)	Series 1000, 3000, 4000, 5000, 6000, 8000			

Packaging:

Packed on wooden pallets.

Usage:

Electric and electronic industry, distribution panel.

• **Conductors**

Hard conductors (air wire)

Technical information:

Hard conductors stranded continually

Normal Cross section	Number & Nominal Wire diameter	Approx Overall diameter	Approx conductor weight	Max D.C Resistance At 20c	Cloulated Breaking load
mm	NRxmm	mm	kg/km	Ohm/km	KN
10	7x1.35	4.1	90	1.8060	4.1
16	7x1.70	5.1	142	1.1385	6.5
25	7x2.10	6.3	217	0.7461	9.9
35	7x2.50	7.5	308	0.5264	14.0
50	7x3.00	9.0	444	0.3656	20.2

* The above conductors can be produced tin-coated

Chemical composition:

Alloy	Denomination	Copper (%)	Oxygen (max ppm)	Standard conformance			
				American	Chinese	Europe	Japanese
				ASTM(B49)	GB	EN(1966)	JIS
CU-OFE	Oxygen-free	99.99	5	C10100	TU2	CW009A	C1011
CU-OF	Oxygen-free	99.95	5	C10200	TU1	CW008A	C1020

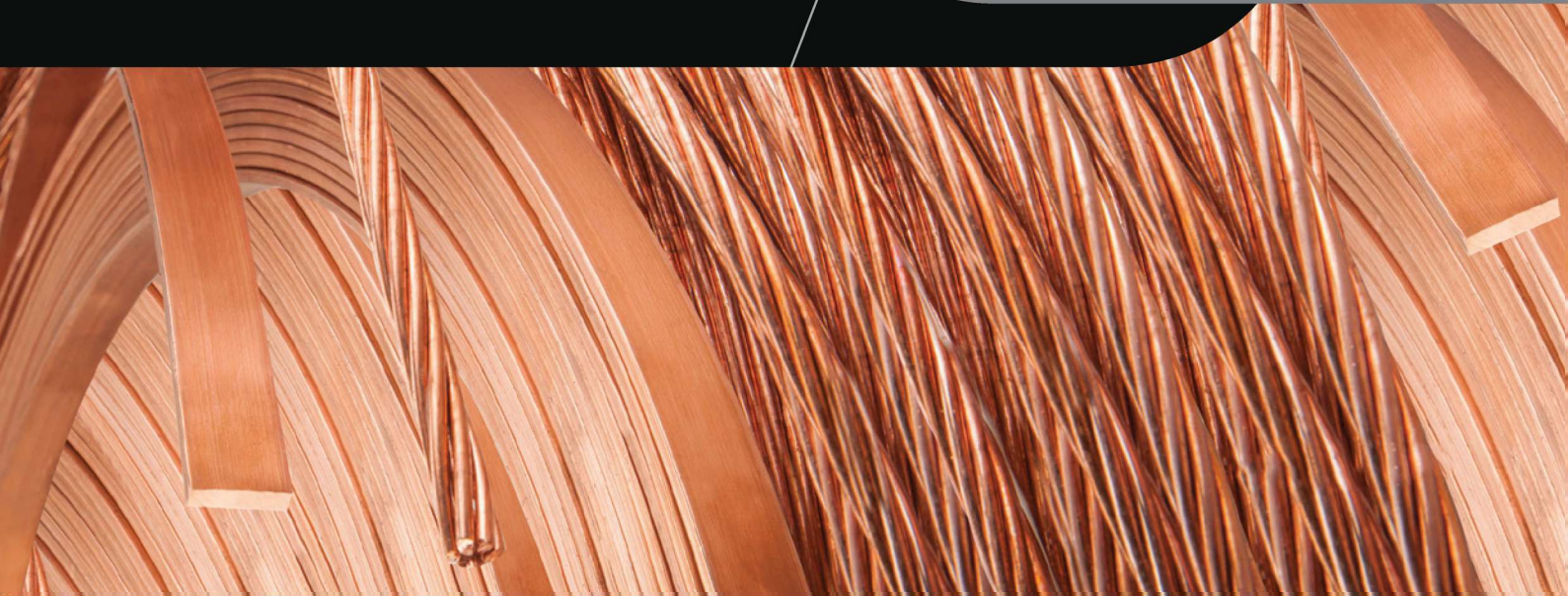
Standard:

In conformance with BSEN 60228 2005 version
The weight is changeable due to order

Usage:

Overhead power transmission and power distribution.

PRODUCTS



Soft copper conductors (earthing)

Technical information:

Annealed conductors stranded continually with or without tin coating

Normal Cross section	Number & Nominal Wire diameter	Approx Overall diameter	Approx conductor weight	Max D.C Resistance At 20 c	Cloulated Breaking load
mm	NR×mm	mm	kg/km	Ohm/km	KN
50	1.80×19	9.0	436	0.3759	19.8
70	2.10×19	10.5	593	0.2762	26.9
95	2.50×19	12.5	840	0.1949	38.1
120	2.80×19	14.0	1054	0.1554	47.8
150	2.50×37	15.7	1326	0.1238	60.1
185	2.50×37	17.5	1640	0.1003	74.2
240	2.25×61	20.2	2208	0.0753	89.0
300	2.50×61	22.5	2226	0.0610	122.3
400	2.89×61	26.0	3643	0.0456	163.4
500	3.23×61	29.1	4550	0.0365	204.2

Chemical composition:

Alloy	Denomination	Copper (%)	Oxygen (max ppm)	Standard conformance			
				American	Chinese	Europe	Japanese
				ASTM(B49)	GB	EN(1966)	JIS
CU-OFE	Oxygen-free	99.99	5	C10100	TU2	CW009A	C1011
CU-OF	Oxygen-free	99.95	5	C10200	TU1	CW008A	C1020

Packing:

- Wooden or plastic coated metal spool
- Weight 100-500 kg
- The weight is changeable due to order

Usage:

Ground power transmission and power distribution, earthing system, electric and flexible cables

Flexibel Conductors

Technical information and dimensions:

Continually annealed stranded conductors

Voltage(V)	Current capacity At 25 C° (A)	Max conductor Resistance at 20 C°	Weight (kg/km)	Mean diameter(mm)		Strands dia. (mm)	Nominal cross Section (mm ²)
				max	min		
300-500	6	39	9	2.1	2.5	16*0.20	0.5
300-500	9	26	12	2.2	2.7	24*0.20	0.75
300-500	11	19.5	15	2.4	2.8	32*0.20	1
450-750	16	13.3	21	2.8	3.4	30*0.20	1.5
450-750	21	7.98	32	3.4	4.1	50*0.20	2.5
450-750	28	4.95	48	3.9	4.8	56*0.30	4
450-750	36	3.3	68	4.4	5.3	84*0.30	6
450-750	49	1.91	115	4.7	6.8	80*0.40	10

PRODUCTS

Chemical composition:

Alloy	Denomination	Copper (%)	Oxygen (max ppm)	Standard conformance			
				American	Chinese	Europe	Japanese
				ASTM(B49)	GB	EN(1966)	JIS
OFE	Oxygen-free electronic copper	99.99	5	C10100	TU2	CW009A	C1011

Packing:

- Wooden or plastic coated spring spool.
- Weight 400 kg
- The weight is changeable due to order

Sydronic wire

Shape and dimensions:

Continually annealed single core wire

Chemical composition:

Product	Diameter (mm)	Spool weight (kg)
Sydronic wire	1.38 and 1.5	400

Alloy	Denomination	Copper (%)	Oxygen (max ppm)	Standard conformance			
				American	Chinese	Europe	Japanese
				ASTM(B49)	GB	EN(1966)	JIS
CU-OFE	Oxygen-free	99.99	5	C10100	TU2	CW009A	C1011
CU-OF	Oxygen-free	99.95	5	C10200	TU1	CW008A	C1020

Technical properties:

Tensile Strength	Elongation (%)	Highest resistance in 20 C° (Ω g/m)
245-285	22-28	0.15328

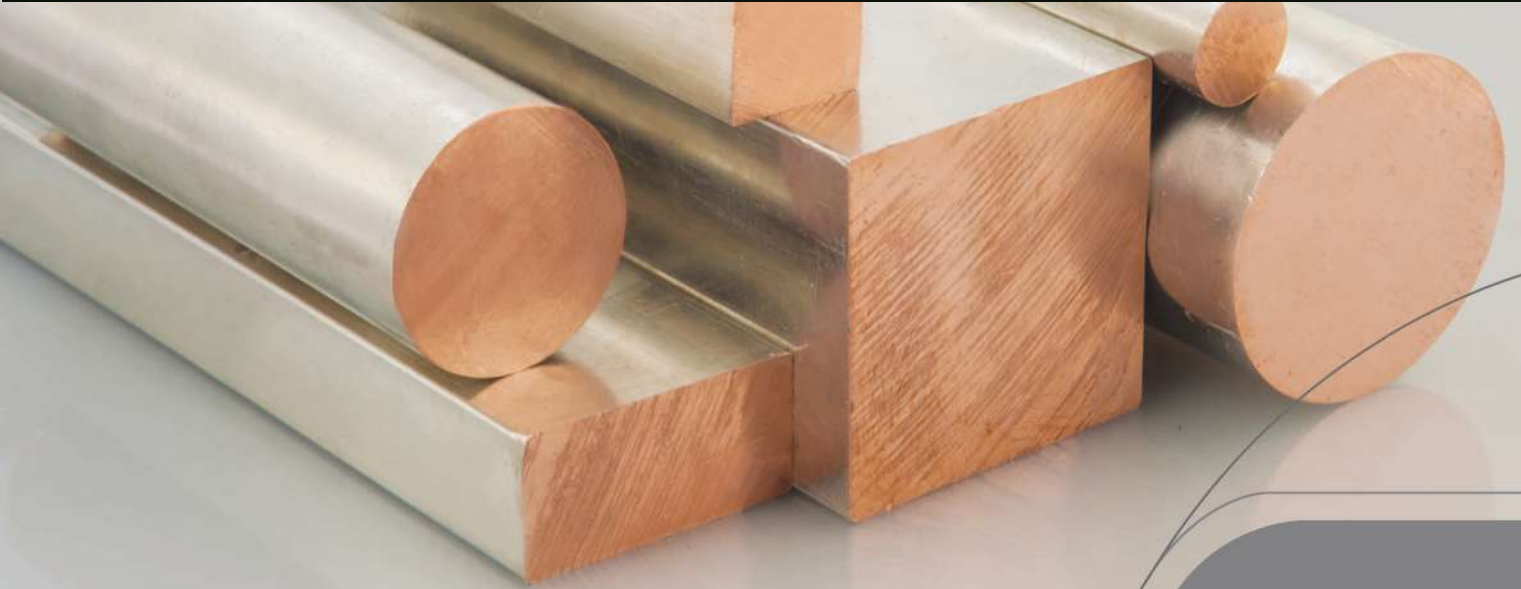
Packing:

- Wooden or plastic coated metal spool
- Weight 400 kg

Usage:

Wrapping industry





TIN-PLATED COPPER ROD AND BUSBAR

Tin-plated copper rod and busbar helps upgrade design and provides the best quality for switchgears, switchboards, electrical panels, power transformers and busducts by:

- Applications
- Switchboards, Switchgears, Electrical Panels, Power Transformers, Busduct, etc.

PRODUCTS

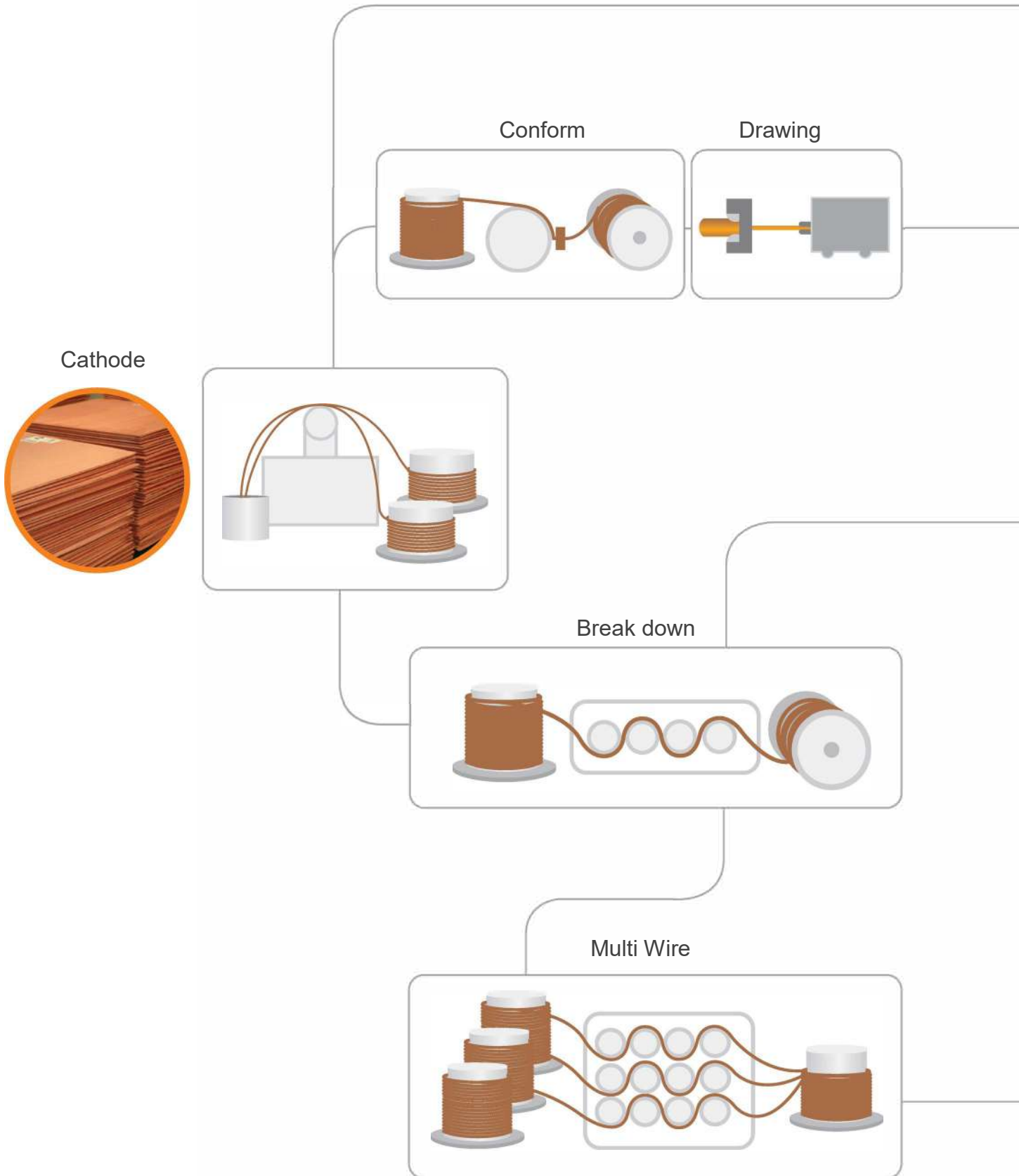
The Purity of Coating Material:

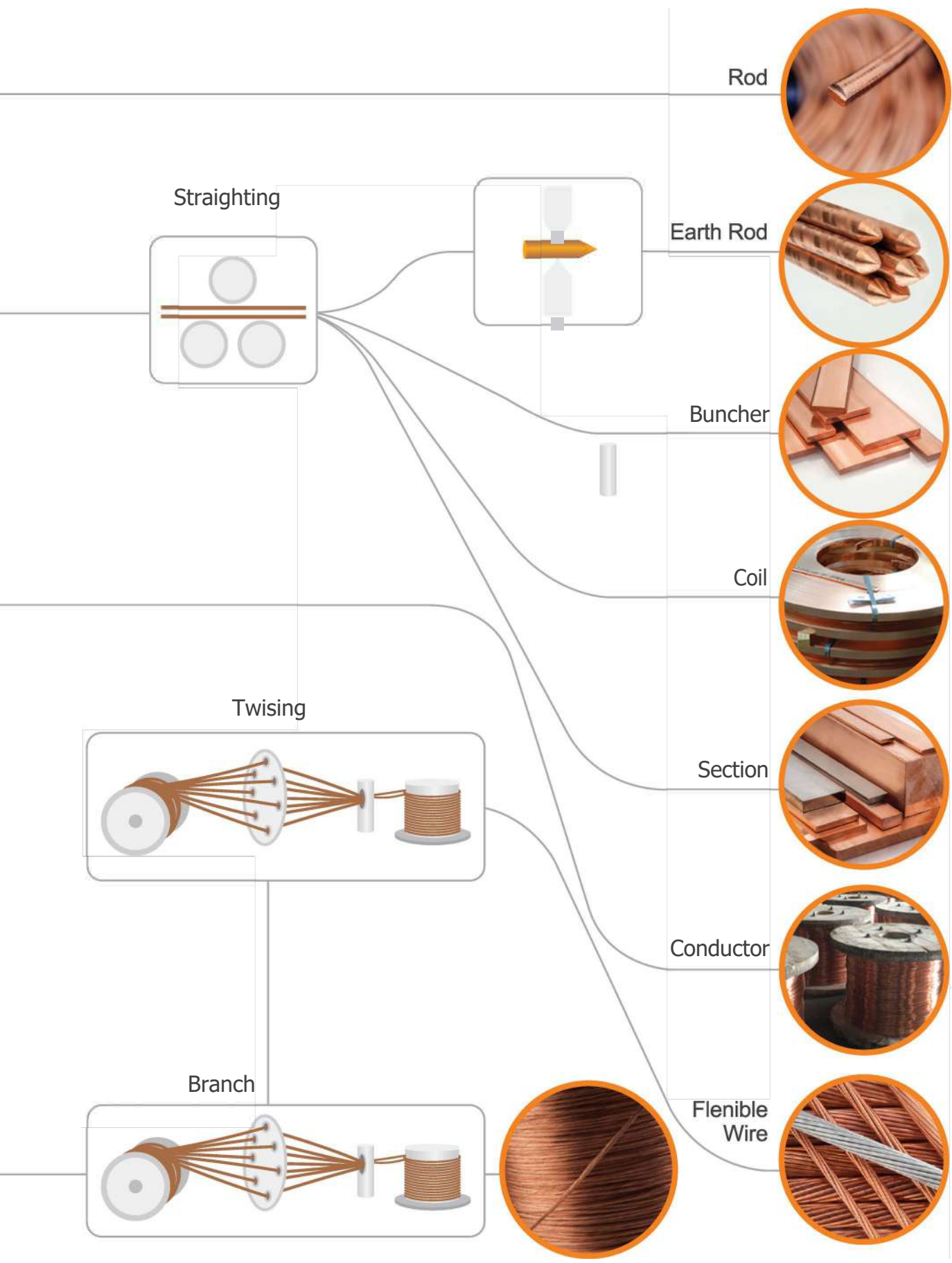
Tin anode, 99.5% up

Coating Thickness:

3 - 30 microns and as per customer's

Production Process







Quality control and laboratories

Controls are categorized in 3 main sections:

The raw material control and matching their properties with company needs.

Production inprocess control and matching with standards.

Final product control and issuing test report

1. The raw material control:

All entry material that are influential to the product quality are inspected upon entering and just in case the quality control unit approves their conformance with the predefined acceptance criteria, they are allowed to use.

2. Production inprocess control:

All intermediate products are inspected in each level of production line and if they meet the technical specifications, they are used in the next level. The inspection status is recorded on the cards designed for each level of production and attached to the wrapping. The nonconformant intermediate products cannot be used in processes unless they are corrected and verified. Generally in all production phases the dimensional examination and mechanical and electrical properties of the conductor are in control.

3. Final product control:

The final products are inspected as well. This control consists of dimensions, contact and disconnect, electrical resistancy, wrapping and ...

obviously, none of the above are attainable unless having suitable equipment and quality control lab employs precise lab equipment to serve the customers as best.

- Dimensional measurement tests (0.001 mm precision)
- Micro ohm meter devices for measuring electric resistancy (up to 30kO)
- Sigma test devices for measuring electric conductivity
- Oxygen test devices for measuring oxygen level
- Weigher devices (up to 30kg)
- Hardness measuring devices (up to 130 Vickers)
- Twist measuring devices per rotation
- Tensile strength device (diameter up to 4 mm)
- Elongation test device (diameter up to 20 mm)
- Punch and bend test device
- Quantometer instrument for analyzing material
- Refractometer instrument (up to 32% Brix)

Available test

	Kind of test	Standard
1	Number, size, resistance and weight	DIN 48201
2	Electrical resistancy	IISIRI 3084
3	Tensile strength	ASTM 83
4	Wire Length and twisting	ASTM 849 ASTM 8193
5	Busbar electrical conductivity	
6	Busbar electrical resistancy	DIN 13601
7	Busbar dimensios and weigh	DIN 13599
8	Busbar bend, twist and hardness	

QUALITY CONTROL



