



JINTIAN™
金田铜业



NINGBO JINTIAN ELECTRIC MATERIAL

宁波金田电材有限公司

NINGBO JINTIAN ELECTRIC MATERIAL CO.,LTD.

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宁波金田电材有限公司

致力打造国际一流电工材料供应商





宁波金田铜业（集团） 股份有限公司

宁波金田铜业（集团）股份有限公司始建于1986年，是国内规模较大的知名铜加工企业。产业涵盖铜加工、高新材料、建筑材料等领域，下辖二十几家子公司，产品结构合理、品类齐备，铜合金板带、铜合金管、线、棒及阴极铜、漆包线、钎铁硼磁性材料等主要产品产量均居行业前列。位列中国企业500强，已成为中国铜加工行业循环经济的引领者。

COMPANY PROFILE

since 1998

公司简介

宁波金田电材有限公司成立于1998年，系宁波金田铜业（集团）股份有限公司的全资子公司，拥有生产车间3万余平方米，固定资产3.5亿元，现有员工730余人。

金田电材经20多年的发展与沉淀，公司已成为国内先进的电工材料加工制造基地，公司拥有美国连铸连轧生产线、德国尼霍夫拉丝生产线，专业生产各类电工圆铜线产品。公司产品符合GB/T 3953—2009、GB/T 3952—2016、GB/T4910-2009、GB/T12970-2009等国家标准，并荣获“浙江省名牌产品”等荣誉称号，主要应用于电磁线、高低压电缆、电线、电子、电气、通讯、网络、机械五金、建筑等行业，与公牛电器、球冠电缆、远东电缆、上海电气等知名企业建立了良好的合作关系。在“创造客户价值，打造百年公司，成为行业标杆，为中国工业强国做贡献”的使命愿景牵引下，公司秉承“天天求变、永不自满、勇于竞争、追求卓越”的企业精神，坚持走循环经济和新型工业化和谐发展道路，拥有一流的管理水平和人才队伍，全面通过ISO9001:2015质量管理体系

系、ISO14001:2015环境体系及ISO45001:2018职业健康安全管理等体系认证，拥有从德国、日本、美国等国家引进的先进制造设备和检测仪器，建成了多条连铸连轧、尼霍夫等国际先进的自动化生产线，2018年产能达30余万吨。面向未来，公司继续坚持“依法经营、诚信经营、自主创新、科学发展”的经营理念，讲质量、守诚信、铸品牌，以市场为导向，以客户为中心，坚持科技兴企，加快转型升级，优化产品结构，提升产品品质，致力打造国际一流电工材料供应商，为实现“世界级500强”的金田梦而不懈奋斗！



Established in 1998, Ningbo Jintian Electric Material Co., Ltd. is a wholly-owned subsidiary of Ningbo Jintian Copper (Group) Co., Ltd. The company has a production workshop of more than 30,000 square meters, fixed assets worth 350 million yuan, and more than 730 employees.

After more than 20 years of development and perseverance, the company has become an advanced manufacturing base for electrical materials in China. The company has American Southwire continuous casting and rolling system and a German Niehoff wire drawing production line. The company specializes in producing various kinds of electrical round copper wire products. The company's products meet the national standards of GB/T 3953-2009, GB/T 3952-2016, GB/T4910-2009, GB/T12970-2009 among others. The company has been awarded with the honorary title of "Famous Brand Product of Zhejiang Province". The products are mainly used in electromagnetic wires, high and low voltage cables, electrical wires, electronics, communications, electrical network, mechanical hardware and construction industry. The company has established good cooperative relationships with well-known enterprises such as Bull, Qrunning Cable, Far East Cable and Shanghai Electric.

Through the Jintian Group's mission of "Create customer value, Build a 100-year-old company, Become a benchmark in the industry, and Contribute to China's industrial growth" and the enterprise spirit of "Seek change everyday, Never be self-satisfied, Dare to compete, Pursue excellence", the company adheres to further develop circular economy and new industrialization, continuously improve its management level, and nurture first-class talents. The company has passed ISO9001:2015 Quality

management system, ISO14001:2015 Environmental management system and ISO45001:2018 Occupational health and safety management system certifications. Ningbo Jintian Electric Material Company has imported advanced manufacturing equipment and testing instruments from Germany, USA, Japan and other countries to build several modern horizontal continuous casting and extrusion lines as well as Niehoff & other international brands' wire production lines. In 2018, the company's electrical copper wire production capacity totaled 300,000 tons.

In the future, the company continues to follow its business philosophy of "Operate according to law, Do business with integrity, innovate independently, Contribute to scientific development". In addition, the company is committed to working towards becoming a high-quality electrical material supplier with first-class service and towards Jintian Group's dream of becoming one of Global 500 companies through quality, integrity, brand building, market-oriented & customer-centric attitude, relying on science and technology, accelerating transformation & upgrading, optimizing product structure and improving product quality.

American Southwire Continuous Casting And Rolling Production Line

美国连铸连轧生产线



美国南方线材 SCR 连铸连轧生产线是世界上技术最成熟可靠的铜杆生产线。公司拥有 SCR3000 连铸连轧生产线与 SCR7000 连铸连轧生产线，年生产能力分别达到 15 万吨、30 万吨。生产的 8mm 铜杆产品各项性能符合 GB/T3952-2016 国家标准。

American Southwire SCR continuous casting and rolling production line is the world's most technologically advanced and reliable copper rod production line. Jintian Electric Material has SCR3000 and SCR7000 continuous casting and rolling systems. The annual production capacity reaches 150,000 tons for each SCR production line, thus totaling 300,000 tons. The properties of 8 mm copper rod products are in line with GB/T3952-2016 national standards.

☑ **GB/T3952-2016**
国家标准

☑ **150,000 t / 300,000 t**
年生产能力



产品技术参数

Technical Data

生产的Φ8mm 低氧铜杆具有表面光亮无毛刺、拉细丝性能好、氧含量稳定等特点，各项性能均高于国家标准 GB/T3952-2016，最小可拉制到 0.08mm 规格铜线。

8mm low-oxygen copper rod has bright & smooth surface, good drawing properties and stable oxygen content. The product properties are higher than the requirements of the national standard GB/T3952-2016. The rod can be drawn up to 0.08mm copper wire.

产品性能 Product properties		内控标准 Internal Control Standards	国家标准 National Standards
± 10 转 turns	铜刺 Copper spikes	无 None	-
	裂缝 Crack	合计 3cm 以下 Total less than 3cm	-
	剥离 Peel off	合计 3cm 以下 Total less than 3cm	-
铜粉 (mg) Copper powder		≤ 5 mg	≤ 15 mg
± 25 转至扭断 (转数) Turns until torsion (turns)		≥ 30 没有不良喇叭口状或裂缝 Without any bell-shapes or cracks	≥ 25
含氧量 (ppm) Oxygen content		200-250	≤ 400
探伤数 Number of flaws detected	大 (L)	≤ 1	-
	中 (M)	≤ 3	-
	小 (S)	≤ 30	-
探铁数 Number of iron detected	大 (L)	0	-
	中 (M)	0	-
	小 (S)	0	-
伸长率 (%) Elongation		≥ 40	≥ 40
线径 Diameter		8.0±0.2mm	8.0±0.4mm
电阻 Resistance		≤ 0.01704	≤ 0.01707
氧化层 (埃) Oxide layers		< 600	-
外观 Appearance		表面光滑, 无飞边、夹杂等缺陷 Smooth surface, no burr, no impurities or other flaws	表面光滑, 无飞边、夹杂等缺陷 Smooth surface, no burr, no impurities or other flaws
生产状况 Production condition	卡炉 Blocks in the furnace	无 none	-
	冷铜 Cold copper	无 none	-
	汤温稳定性 Stability of copper water temperature	± 5°C	-
	铸锭温度稳定性 Stability of ingot temperature	± 5°C	-
	浇注状况 Casting condition	液位无大幅度波动 Without significant fluctuations in the level	-
其他 Others		正常、稳定 Normal and Stable	-

German Niehoff Drawing Lines

德国尼霍夫拉丝生产线



德国尼霍夫高速拉丝生产线是世界上最先进的电工圆铜线生产线。公司拥有德国尼霍夫高速连续退火拉丝生产线、德国尼霍夫绞线生产线、德国尼霍夫并线生产线。可为客户定制生产各类电工圆铜线产品，各项性能指标符合 GB/T3953-2009、GB/T4910-2009、GB/T12970-2009 等国家标准。

German Niehoff high-speed wire drawing line is the world's most advanced electrical round copper wire production line. Our company has a Niehoff high-speed continuous annealing drawing line, Niehoff stranded wire production line and Niehoff parallel wire drawing line. We can customize all kinds of electric round copper wire products for customers. The performance indicators are in line with GB/T3953-2009, GB/T4910-2009, GB/T12970-2009 and other national standards.

☑ GB/T3953-2009

GB/T4910-2009

GB/T12970-2009

国家标准



材料类型 Material Types		低氧光亮铜线 (电工圆铜线) Bright low-oxygen wire (electrical round copper wire)			
产品名称 Name of Commodity		TR 2.6mm		TR 3mm	
产品状态 Status		软态TR		软态TR	
包装方式 Packaging		紧密收线 Spooler Coils	梅花收线 Orbital Coils	紧密收线 Spooler Coils	梅花收线 Orbital Coils
包装规格 Packaging specifications		1000*1000*700	Φ1100*1750	1000*1000*700	Φ1100*1750
单重 Unit weight		≤2 t	≤1.8 t	≤2 t	≤1.8 t
标准产品 Standard product	公差 Tolerance	±0.026 mm		±0.03 mm	
	不圆度 Roundness	0.026 mm		0.03 mm	
	伸长率 Elongation	>30 %		>30 %	
	电阻率 Resistivity	≤0.017241		≤0.017241	
	表面质量 Surface quality	光洁、无毛刺 Smooth without burr		光洁、无毛刺 Smooth without burr	

材料类型 Material Types		低氧光亮铜线 (电工圆铜线) Bright low-oxygen wire (electrical round copper wire)	
产品名称 Name of Commodity		TY 3mm	
产品状态 Status		硬态TY	
包装方式 Packing		梅花收线 Orbital Coils	
包装规格 Packing Specification		Φ1100*1750	
单重 Each weight		≤1.8 t	
标准产品 Standard product	公差 Tolerance	±0.03 mm	
	不圆度 Roundness	0.03 mm	
	抗拉强度 Tensile Strength	≥389N/mm ²	
	伸长率 Elongation	≥1%	
	电阻率 Resistivity	≤0.01777	
表面质量 Surface quality	光洁、无毛刺 Smooth without fur		

Jintian Electric Material Process Flow Chart And Control Points

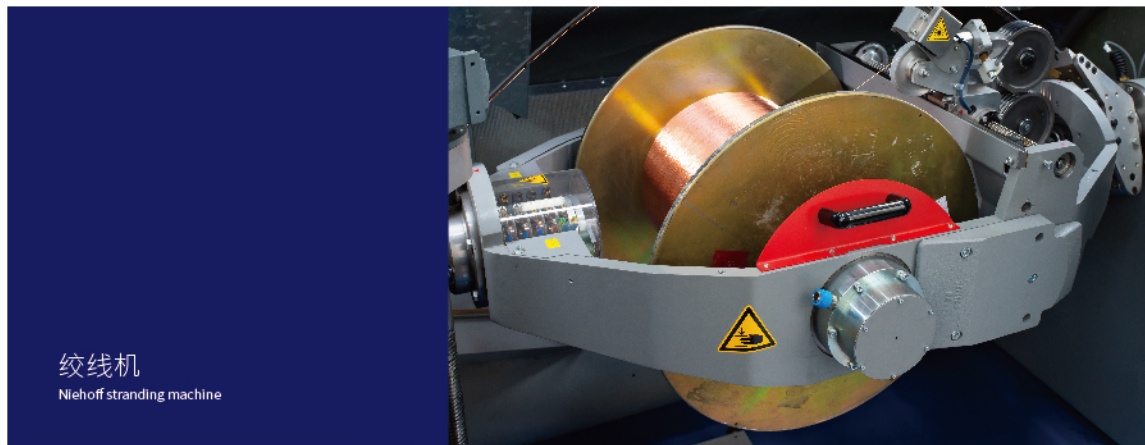
金田电材工艺流程图及控制点



单丝设备
 Wire drawing machine



绞线机
 Niehoff stranding machine



绞线机
 Niehoff stranding machine

Jintian Electric Material Process Flow Chart And Control Points

金田电材工艺流程图及控制点



Jintian Electric Material Product Types

金田电材产品类型



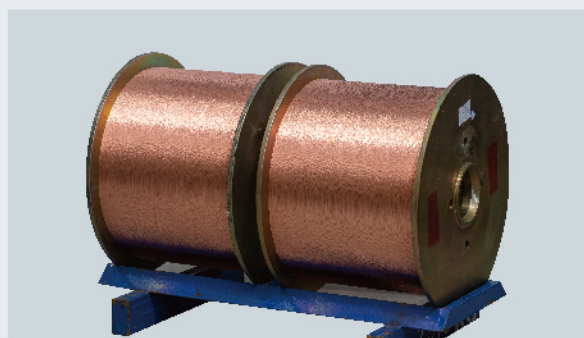
8mm 产品
8mm copper wire



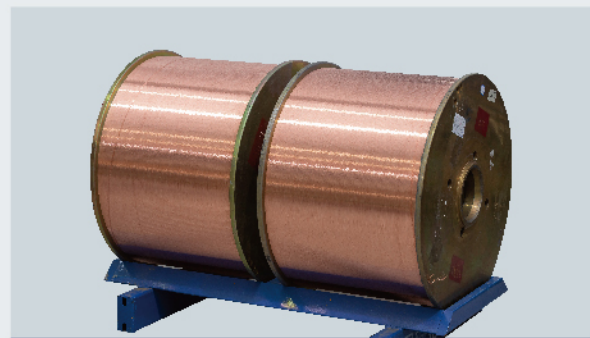
3mm 产品
3mm copper wire



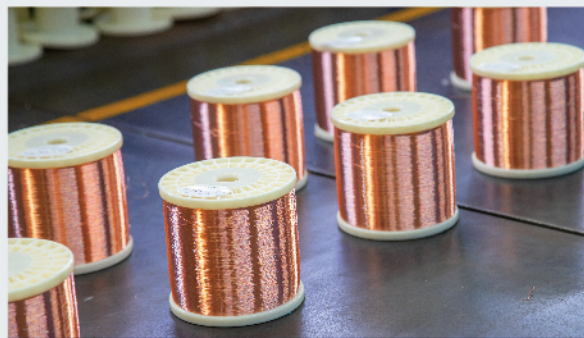
2.6mm 产品
2.6mm copper wire



绞线
Stranded wire



并线
Parallel wire



单丝
Single strand wire

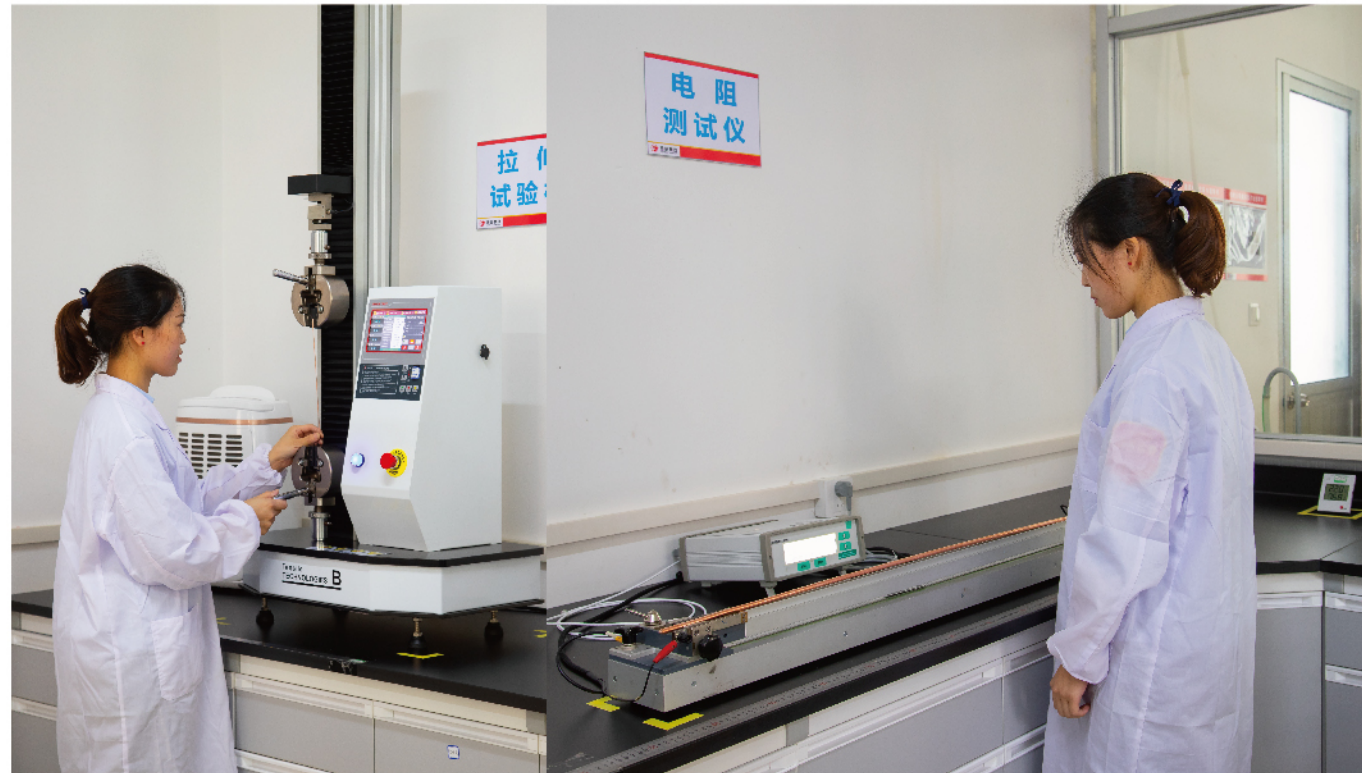
Jintian Electric Material Product Types

金田电材产品类型

产品名称 Product Name	产品型号 Product Type	产品规格范围 Product Specification Range	执行标准 Standard
电工圆铜杆 Electrical round copper rod	T,M20	8mm	GB/T3952-2016
电工圆铜线 (软) Electrical round copper wire (soft)	TR	1.4mm-3.5mm	GB/T3953-2009
电工圆铜线 (硬) Electrical round copper wire (hard)	TY	1.4mm-3.5mm	GB/T3953-2009
电工圆铜线 (单丝) Electrical round copper wire (single strand wire)	TR	0.1mm-1.0mm	GB/T3953-2009
电工圆铜线 (并丝) Electrical round copper wire (parallel wire)	TR	0.1mm-1.0mm	GB/T3953-2009
电工圆铜线 (绞线) Electrical round copper wire (stranded wire)	TJR	0.1mm ² -16mm ²	GB/T12970-2009

Quality Control

质量管理



Quality Control

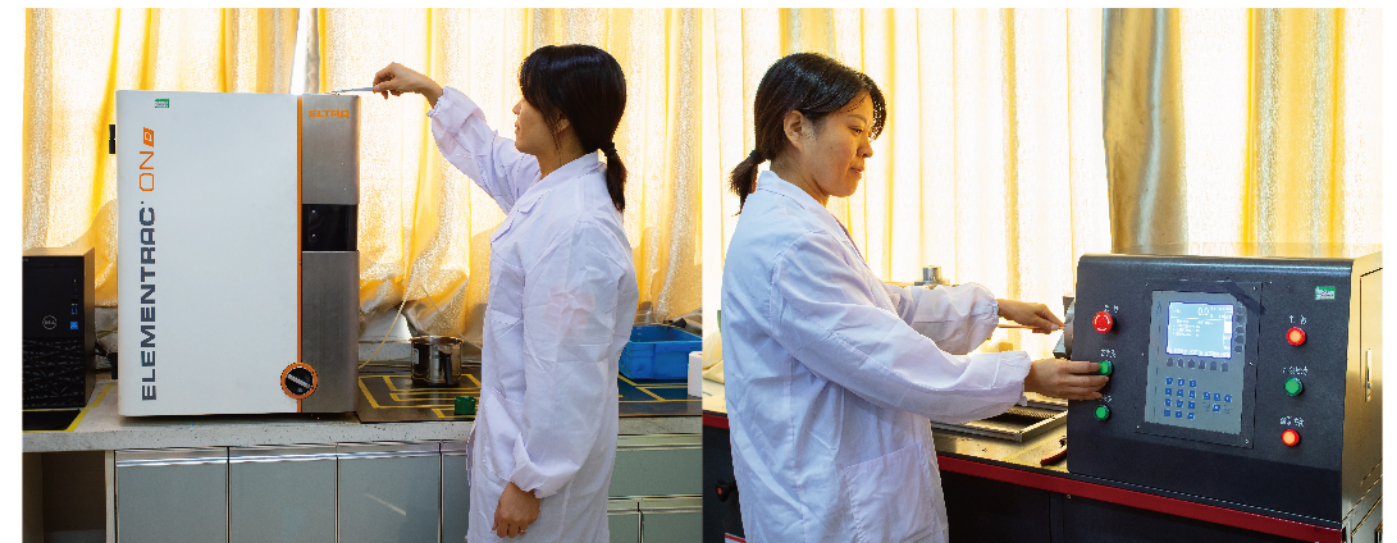
质量管理

没有质量就没有客户，没有客户就没有市场，没有市场企业就不复存在。企业不存在员工就没有工作，没有工作就没有一切。

质量管理贯彻在生产以及价值链每一个环节，做到“全面全员全过程”。树立“优质产品，从我做起”的质量意识。金田人信奉“人品好，产品好”；发扬工匠精神，精工细作，精琢细磨，出良品、出精品。

Without quality, there would be no customers. Without customers, there would be no market. Without market, companies would no longer exist. If companies did not exist, workers would not have work, and without work, there is nothing.

Quality control is implemented in every aspect of production and value chain. The company has set up a quality consciousness of "high quality products start from me". Jintian people believe that "good people produce good products" and that we should always carry forward the spirit of artisans, fine workmanship and pay attention to detail to produce excellent quality products.



Jintian Electric Material Product Applications

应用领域

风能 / 光伏新型高效焊带 / 汇流带镀锡铜基材

Wind power / photovoltaic new high efficiency welding tape
/ Tinned copper substrate for busbars



核电电缆铜导体

Copper conductors of nuclear power cables



石油钻井平台及 船用连接电缆铜导体

Copper conductors for oil drilling platforms and
marine cables



新能源汽车高 / 低压动力连接电缆铜导体

New energy vehicle high
/ low pressure power connection cable copper conductor



Jintian Electric Material Product Applications

应用领域

轨道交通电缆铜导体

Copper conductors of rail transit cables



电动工具 / 家电行业

Electric tool industry
/ Appliance industry



信息通讯行业

Information and communications industry



控制电缆行业

Control cable industry

