



华鑫铜箔

WASON

WASON

灵宝华鑫铜箔有限责任公司

地址：河南省灵宝市黄河路131号

电话：0398-2290357（营销部）

传真：0398-2290358（营销部）

电子邮箱：xsb@wasoncf.com

电子邮箱：hxtbxzglb@wasoncf.com

华南营销中心

地址：广东东莞市凤岗镇嘉辉豪庭迎风轩1802室

华东营销中心

地址：江苏省苏州市平江区银都商务广场2幢1502室

Lingbao Wason Copper Foil Co.,Ltd

Add: No.131,Huanghe Road,He Nan Lingbao

Tel:0398-2290357 (Marketing Departments)

Fax:0398-2290357 (Marketing Departments)

E-mail:xsb@wasoncf.com

E-mail:hxtbxzglb@wasoncf.com

Southern China Marketing Center

Add: Room 1802,Guangdong,Dongguan,Fenggang

East China Marketing Center

Add: Room 1502,2 Commercial Plaza,Pingjiang District,Suzhou,Jiangsu

以质量为核心，以创新为动力
Quality as the core, innovation-driven



华鑫铜箔让电子产业更精细，让锂动力电池更高端
Wason Copper Foil for the electronics industry is more finer, more high-end lithium battery

灵宝华鑫铜箔有限责任公司 Lingbao Wason Copper Foil Co.,Ltd.



公司简介 Company introduction

灵宝华鑫铜箔有限责任公司是深圳龙电电气股份有限公司全资子公司。公司成立于2001年，总投资30亿元，现可生产5-70μm高精度锂电箔及9-105μm高精度电路板箔。年生产能力达3万吨，产品销往松下电工、LG化学、三星SDI等国际知名企业，并是国内知名企业CATL、比亚迪、生益、宏仁、深南、健鼎、富士康等国内龙头企业的主力供应商。

公司拥有国际一流的生产制造、检验分析设备，设立有河南省高档电解铜箔院士工作站、河南省电解铜箔示范性国际科技合作基地、河南省博士后研发基地、河南省电解铜箔工程技术研究中心、电解铜箔河南省工程实验室等科研平台，承担过国家、省、市等多层次科技研发项目，研发水平处国内前列，近年来获得专利194项（其中发明专利10项），发表科技相关论文20余篇，成果转化52项。

公司荣获中国电子材料行业50强企业、电子铜箔材料专业十强企业、新材料行业20强企业、河南省技术创新示范企业、河南省十佳科技型企业、中国海关高级认证企业、河南省质量诚信A级工业企业、河南省信用建设示范单位、河南省瞪羚企业、河南省名牌产品等殊荣。

Lingbao Wason Copper Foil Co.,LTD.is a wholly-owned subsidiary of Shenzhen Longdian Electric Co.,LTD.,It was established in 2001 with a total investment of 3 billion yuan. Now it can produce 5-70 micron high precision lithium foil and 9-105 micron high precision circuit board foil. Annual production capacity of 30,000 tons, products sold to Panasonic Electrical, LG Chemistry, Samsung SDI and other well-known international enterprises, and is a well-known domestic enterprises CATL, BYD, SYTECH, Hongren, Shennan, Jianding, Foxconn and other leading domestic suppliers.

The company has world-class production, manufacturing, inspection and analysis equipment, and has established Henan Province's top-grade academician workstation for electrolytic copper foil, Henan Province's demonstration international scientific and technological cooperation base for electrolytic copper foil, Henan Province's post-doctoral research and development base, Henan Province Electrolytic Copper Foil Engineering Research Center, Henan Province's Engineering Laboratory for electrolytic copper foil and other disciplines R&D platform has undertaken multi-level R&D projects at national, provincial and municipal levels. R&D level is in the forefront in China. In recent years, 194 patents (including 10 invention patents) have been obtained, more than 20 scientific and technological papers have been published, and 52 achievements have been transformed.

The company has won the top 50 enterprises in China's electronic material industry, top 10 enterprises in electronic copper foil material specialty, top 20 enterprises in new material industry, demonstration enterprises in Henan province's technological innovation, top 10 scientific and technological enterprises in Henan province, advanced certification enterprises in China's Customs, A-level industrial enterprises in Henan province's quality and integrity, demonstration units of credit construction in Henan province, and rivers. South province gazelle enterprises, Henan famous brand products and other awards.

关于深圳龙电电气公司 About Shenzhen Longdian Electric Company



深圳龙电电气股份有限公司成立于1996年，是国内领先的智慧用电综合解决方案提供商。龙电电气主要产品及解决方案包括：低压集抄系统（单相智能电能表、三相智能电能表、集抄终端、管理系统）、新能源系列（充电桩方案及运营、电动车组件、光伏电站）、智能配电网设备、通信模块、智慧城市及电力行业增值服务解决方案等。

Shenzhen Londian Electrics Co., Ltd. (Londian), established in 1996, is China's leading provider in smart power integrated solutions. Londian's main product line and solutions include: low voltage set reading systems (single/three-phase smart electric energy meters, collection of terminal and management systems), New energy series include: (charging pile solutions and operation, parts for electric vehicle and photovoltaic power stations), smart electrics distribution equipment, communication modules, smart city and value-added electrics service solutions.



WASONG
WASONG COPPER FOIL CO., LTD.
灵宝华鑫铜箔有限公司
荣誉

WASON 公司荣誉 COMPANY HONOURS

华鑫铜箔自组建以来，已走过了多年发展历程，在发展过程中，先后受到了国家、科技部、河南省各级领导和社会各界的密切关注和大力支持。雄厚的企业实力，铸就了华鑫铜箔辉煌的业绩。公司获得中国电子材料行业50强企业、电子铜箔材料专业十强企业、新材料行业20强企业、河南省技术创新示范企业、河南省十佳科技型企业、中国海关高级认证企业、河南省质量诚信A级工业企业、河南省信用建设示范单位、河南省瞪羚企业、河南省名牌产品等殊荣。

Since its formation, Huaxin copper foil has gone through many years of development. In the process of development, it has been closely concerned and strongly supported by the leaders of the state, the Ministry of science and technology, the leaders of all levels in Henan province and all walks of life. Strong enterprise strength has created brilliant achievements of Huaxin copper foil. The company has won the top 50 enterprises in China's electronic materials industry, the top ten enterprises of electronic copper foil materials, the top 20 enterprises in the new materials industry, the Henan provincial technology innovation and demonstration enterprises, the ten best scientific and technological enterprises in Henan Province, the high certification enterprises of China Customs, the quality and credit grade A industrial enterprises in Henan Province, the credit construction demonstration unit and the river in Henan Province, and the river South province gazelle enterprises, Henan famous brand products and other awards.

荣誉见证实力，实力见证辉煌
Honor to witness the strength, the strength of witness brilliant

- 2002年12月首次被认定为河南省高新技术企业。
- 2009年6月首次通过ISO9001质量管理体系认证。
- 2009年7月首次通过ISO14001环境管理体系认证。
- 2011年10月获河南省十佳科技型最具创新力示范企业。
- 2012年2月获河南省新材料行业20强企业。
- 2012年8月被评为河南省质量诚信A级工业企业。
- 2012年10月获三门峡市市长质量奖。
- 2014年4月被评为全国安康杯竞赛优胜单位。
- 2015年5月获中国电子材料行业电子铜箔材料专业十强企业。
- 2015年5月获中国电子材料行业五十强企业。
- 2015年1月通过ISO/TS16949:2009质量管理体系认证。
- 2015年11月被评为河南省瞪羚企业。
- 2017年1月获中国海关高级认证企业。
- 2018年1月通过IATF16949:2016质量管理体系认证。

- In December 2002, it was first recognized as a high-tech enterprise in Henan province.
- June 2009 passed ISO9001 quality management system certification for the first time.
- July 2009 passed ISO14001 environmental management system certification for the first time.
- In October 2011, it was awarded the top ten scientific and technological innovation enterprises in Henan.
- The top 20 enterprises in the new materials industry of Henan Province in February 2012.
- In August 2012, he was awarded the Henan provincial quality integrity A-level industrial enterprise.
- Sanmenxia mayor Quality Award in October 2012.

- In April 2014, he was named the Winner of the national Ankang cup competition.
- In May 2015, he was awarded the top ten enterprise of electronic foil industry in China.
- In May 2015, it won the top fifty enterprises in China's electronic material industry.
- Passed SO/TS16949: 2009 quality management system certification in January 2015.
- The gazelle enterprise of Henan province in November 2015.
- China Customs advanced certification enterprise in January 2017.
- Passed ATF 16949: 2016 quality management system certification in January 2018.





ICP (全谱直读等离子体发射光谱仪)
ICP (Full Spectrum Of Direct-reading Plasma Emission Spectrometer)



DCS在线监控系统
The DCS Online Monitoring System

WASON 质量保证 Quality Assurance

质量为本是华鑫铜箔人人都认真遵循的价值观念。高效严谨的管理体系，训练有素的专业市场技术队伍，强有力的质量保证体系，有效的变更控制和验证制度实现了对生产设备、生产用原辅材料、生产工艺、半成品及最终产品生产全过程的有效管控。

Quality is the value concept that Wason copper foil conscientiously follows. The efficient and rigorous management system, the well-trained professional market technology team, the strong quality assurance system, the effective change control and verification system have realized effective control on the whole process of production equipment, raw and auxiliary materials for production, production process, semi finished product and final product production.



抗剥离强度试验机
Peel Strength Testing Machine



高温延伸率-抗拉强度试验机
High Temperature Elongation-Tensile Strength Testing Machine



常温延伸率-抗拉强度试验机
Elongation At Room Temperature-Tensile Strength Testing Machine



百万分之一电子天平
Millionth Electronic Balance



粗糙度测试仪
Roughness Tester



SEM即扫描电子显微镜
SEM Namely Scanning Electron Microscope



华鑫铜箔坚守“一流技术、一流设备、一流管理、一流品质”国际化市场竞争理念，引进先进的技术工艺和生产设备，生产核心设备如阴极辊、生箔机、分剪机、切片机、过滤器等设备全部从国外进口，多年的发展凝聚了一支高素质的科研和管理核心团队，形成了完善的管理体系，使产品质量在国内遥遥领先。

Wason copper foil sticks to the international market competition concept of "first-class technology, first-class equipment, first-class management, first-class quality", introduces advanced technology and production equipment. The production core equipment, such as cathode roller, foils machine, shear machine, slicer, filter and other equipment, all are imported from outside the country, and the development of many years has condensed one The core team of high quality research and management has formed a perfect management system, making the product quality far ahead in China.



铜箔表面处理设备
Copper Foil Surface Processing Equipment



韩国进口分剪机
South Korea Imported Shears Machine

工艺设备 Process Equipment



溶液设备
Solution Equipment



生箔设备
Crude Foils Equipment

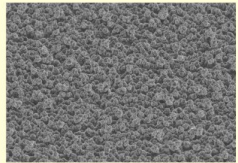
▶ 高温延伸率铜箔 (HTE)

● 产品技术参数 Technical Data

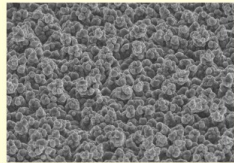
No	项目 CLASSIFICATION	单位 Unit	1/4 Oz	1/3 Oz	1/2 Oz	1 Oz	2 Oz																			
			(9 μm)	(12 μm)	(15 μm)	(18 μm)	(35 μm)	(70 μm)																		
			HTE	HTE	HTE	HTE	HTE																			
1	铜纯度 Cu Contents	%	min. 99.8																							
2	单位面积重量 Area Weight	g/m ²	80±3	107±3	127±4	153±5	283±5	585±10																		
3	抗拉强度 Tensile Strength	kg/mm ²	at 25℃		min. 28.0			min. 30.0																		
			at 180℃		min. 15.0																					
4	延伸率 Elongation	%	at 25℃		min. 4.0		min. 5.0		min. 6.0		min. 10.0															
			at 180℃		min. 4.0		min. 5.0		min. 6.0																	
5	表面粗糙度 Surface Roughness	μm	Shiny Side (Ra)									max. 0.4														
			Matte Side (Rz)									max. 5.0			max. 6.0			max. 7.0			max. 7.0			max. 9.0		
6	抗剥离强度 Peel Strength	A	kg/cm		min. 1.0		min. 1.2		min. 1.2		min. 1.3		min. 1.8		min. 2.0											
7	Chemical Resistance 耐药品性 HCl 18%, 25℃/1hr	%	Max. 5.0																							
8	Discoloration of S-Side 高温防氧化 190℃/1hr	-	None																							
9	Solder Floating 耐浸焊 290℃	sec.	Min. 2.0																							
10	针孔 Pin-Hole	EA	Zero																							
11	基材 Prepreg		FR-4																							

更轻、更薄、更现代、更快捷、更环保、更小巧。

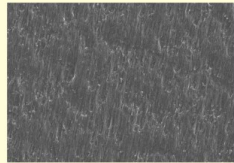
欢迎光临微观世界 Welcome to visit the micro word



M面放大1000倍



M面放大2000倍

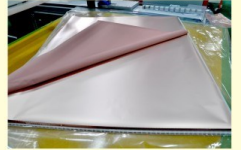


S面放大1000倍

▶ 超低轮廓铜箔 (VLP)

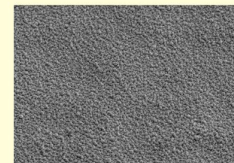
● 产品技术参数 Technical Data

项目 CLASSIFICATION	单位 UNIT	9 μm	12 μm	18 μm	35 μm	70 μm	105 μm								
		Conference of Parties 客户协商													
缺陷/接头 Defect/Splice	-	Conference of Parties 客户协商													
1 铜纯度 Cu	%	Min. 99.8													
2 单位面积重量 Area Weight	g/m ²	80±3	107±3	153±5	283±7	585±10	875±15								
3 抗拉强度 Tensile Strength	kg/mm ²	A		Min. 28.0											
		At 180℃		Min. 15.0		Min. 18.0		Min. 20.0							
4 延伸率 Elongation	%	A		Min. 5.0		Min. 6.0		Min. 10.0							
		At 180℃		Min. 6.0		Min. 8.0									
5 表面粗糙度 Roughness	μm	SHINY (Ra)						Max. 0.43							
		MATTE (Rz)						Max. 3.5							
6 抗剥离强度 Peel Strength	A	kg/cm		Min. 0.77		Min. 0.8		Min. 0.9		Min. 1.0		Min. 1.5		Min. 2.0	
7 抗药性 Degraded rate of Hc (18%-1hr/25℃)	%	Max. 7.0													
8 高温防氧化 Change of color (E-1.0hr/200℃)	%	GOOD													
9 耐浸焊 Solder Floating 290℃	sec.	Min. 2.0													
10 外观 Appearance (Spot and Copper powder)		None													
11 针孔 PIN-HOLE	EA	Zero													
12 尺寸公差 Size Tolerance	mm	宽度 Width		0-2mm											
		长度 Length		-											
13 芯管 Core	mm	79 (±1) Inside Diameter													
		109 (±1) Outside diameter													

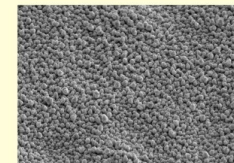


更轻、更薄、更现代、更快捷、更环保、更小巧。

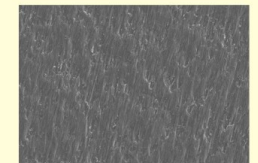
欢迎光临微观世界 Welcome to visit the micro word



M面放大1000倍



M面放大2000倍



S面放大1000倍

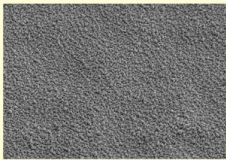
▶ 挠性铜箔 (FCF)

● 产品技术参数 Technical Data

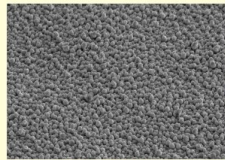
项目	CLASSIFICATION	单位 UNIT	9 μm	12 μm	18 μm	35 μm
缺陷/接头 Defect/Splice		-	Conference of Parties			
1	Cu	%	Min. 99.8			
2	Area Weight	g/m ²	80±3	107±3	153±5	283±7
3	抗拉强度 Tensile Strength	A	Min. 28.0			
		At 180℃	Min. 15.0	Min. 15.0	Min. 15.0	Min. 18.0
4	延伸率 Elongation	A	Min. 5.0	Min. 5.0	Min. 6.0	Min. 10.0
		At 180℃	Min. 6.0		Min. 8.0	
5	表面粗糙度 Roughness	Shiny Side(Ra)	Max. 0.43			
		Matte Side(Rz)	Max. 2.5			
6	抗剥离强度 Peel Strength	A	kg/cm	Min. 0.77	Min. 0.8	Min. 0.8
7	Degraded rate of Hc ₀ (18%-1hr/25℃) 耐药品性	%	Max. 7.0			
8	Change of color (E-1.0hr/200℃) 高温防氧化	%	GOOD			
9	Solder Floating 290℃ 耐浸焊	sec.	Min. 2.0			
10	Appearance (Spot and Copper powder) 外观		None			
11	针孔 Pin-Hole	EA	Zero			
12	尺寸公差 Size Tolerance	Width	mm			
		Length	mm			
13	芯管 Core		79 (±1) Inside Diameter			
			109 (±1) Outside diameter			

更轻、更薄、更快捷、更环保、更小巧、更现代、更电子。

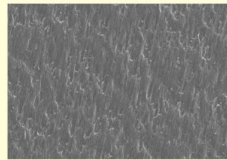
欢迎光临微观世界 Welcome to visit the micro word



M面放大1000倍



M面放大2000倍

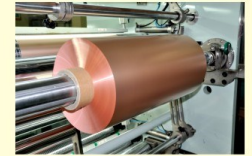


S面放大1000倍

▶ 双面光锂电池专用铜箔 (BCF)

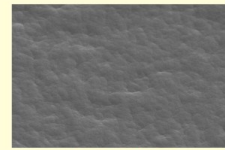
● 产品技术参数 Technical Data

No	检测项目 Test Item	单位 UNIT	性能指标 Specification		
			5 μm	6 μm	8 μm
1	铜纯度 Cu	%	Min.99.9		
2	单位面积质量 Area Weight	g/m ²	45±2	54±2	72±2
3	抗拉强度 (25℃时) Tensile Strength (25℃)	kg/mm ²	Min.30	Min.28	Min.40
4	延伸率 (25℃时) Elongation (25℃)	%	Min.3.0	Min.2.0	Min.3.0
5	表面粗糙度 (S-面) Roughness(S-Side)	μm (Ra)	0.1-0.4		
6	表面粗糙度 (M-面) Roughness(M-Side)	μm (Rz)	Max.2.0		
7	热变色 Change of Color	140℃/15min	无None		
8	针孔 Pin-Hole	个	0		
9	尺寸公差 (宽度) Size Tolerance(Wodth)	mm	-0, +2		
10	尺寸公差 (长度) Size Tolerance(Length)	m	-0,+10		
11	外观 Appearance	无None	打折, 划伤, 花斑, 氧化变色等 No drape, scratch, pollution, oxidation, discoloration and so on that effect using		
12	收卷方法 Winding Method	-	沿着一定的位置收卷, 没有窜卷、软棱、张力均匀 When the winding tension in the stable, no loose roll phenomenon		

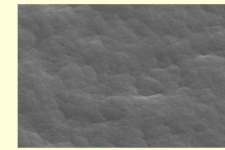


更轻、更薄、更快捷、更环保、更小巧、更现代、更电子。

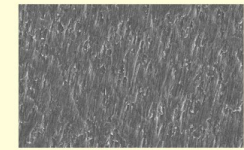
欢迎光临微观世界 Welcome to visit the micro word



M面放大1000倍



M面放大2000倍



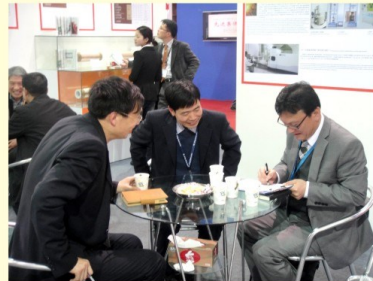
S面放大1000倍

市场



华鑫铜箔凭借优异的品质和优良的服务，在激烈的市场竞争中脱颖而出，与众多国内外一流企业保持长期稳定的战略合作关系，铸就了一流的华鑫品牌。

With excellent quality and excellent service, Huaxin copper foil stands out in the fierce market competition, and maintains a long-term stable strategic cooperative relationship with a large number of domestic and foreign first-class enterprises, casting the first class Huaxin brand.



CCL、PCB铜箔主要战略合作伙伴
CCL, PCB copper foil major strategic partners



锂电箔主要战略合作伙伴
The lithium foil strategic partners

