



荣春木业（高唐）有限责任公司
Rongchun Wood Industry (Gaotang) Co., Ltd

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Your Transformer Success, Engineered with Rongchun Insulation



荣春木业
RONGCHUN WOOD

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COMPANY PROFILE



荣春木业（高唐）有限责任公司，位于中国山东省聊城市高唐县，占地面积 20,000 余平方米。自 2014 年成立以来，公司始终专注于油浸式变压器用电气层压木绝缘板及电气层压木成型件的研发与制造，是全球重要的绝缘材料供应商之一。

Rongchun Wood Industry (Gaotang) Co., Ltd., located in Gaotang County, Liaocheng City, Shandong Province, China, covers a production area of over 20,000 square meters. Since its establishment in 2014, we have focused on the R&D and manufacturing of Electrical Laminated Wood and Insulation Components for oil-immersed transformers, and have grown to become one of the key global suppliers of insulation materials.

公司秉持“质量为本、人才为基”的发展理念，致力于打造绝缘产业新质生产力。我们精选优质进口白桦木、德国山毛榉木为原料，通过蒸煮、旋切、干燥、涂覆低介损酚醛树脂胶，并通过高温高压精密制成。

Guided by the philosophy of "Quality as the Foundation, Talent as the Cornerstone", we are committed to advancing productive capabilities in the transformer insulation industry. We meticulously select the premium imported white birch and German red beech as raw materials. The manufacturing processes including steaming, rotary cutting, drying, coating with phenolic resin adhesive, and followed by high-temperature, high-pressure precision pressing.

公司配备先进生产设备，拥有五台大幅面高性能热压机，单台压机压力可达 8000 吨。科学严谨的工艺，确保鄂威® 产品全面符合 GB/T 20634 与 IEC 61061 标准。

Our advanced production facilities include five large high-performance hot presses, each with a pressing force of up to 8,000 tons. Rigorous scientific processes ensure that every EWay® product fully complies with GB/T 20634 and IEC 61061 standards.

主营产品包括：电工层压木绝缘板、电工木圆棒、变压器支撑大引线支架，电工木圆环以及各类油浸式变压器绝缘成型件。公司持有 ISO 9001、ISO 14001、ISO 45001 管理体系，碳中和管理体系认证，以及 15 项国家专利证书。2025 年 9 月，荣春被山东省评为科技型中小企业。凭借卓越品质，荣春已成为全球多家领先变压器制造商的长期合作伙伴，产品远销墨西哥、新加坡、泰国、越南、巴基斯坦等国家。

Our main products include: Birch/ Beech Electrical Laminated Wood, Laminated Wood Round Rods, Transformer Lead Support Brackets, Laminated Rings, and Transformer Support Accessories for oil-immersed transformers. Rongchun is certified with ISO 9001, ISO 14001, ISO 45001, the Carbon Neutrality Management System, and 15 Chinese National Patents. In Sep. 2025, Rongchun was recognized as a Technology-Based SME by Shandong Province. Thanks to our superior quality, we have become a trusted long-term partner for many leading transformer manufacturers worldwide, the products are exported to Mexico, Singapore, Thailand, Vietnam, and Pakistan, and more.

依托高精度实验设备和高灵敏度金属检测系统，我们建立了完善的质量控制体系，实现全流程可控与持续改进，为全球变压器客户提供稳定、安全的绝缘解决方案。秉承“质量一流、服务优良、诚信为本”的经营宗旨，我们全力打造变压器绝缘材料领域的创新生产力，为全球电力设备的安全运行保驾护航。

Supported by high-precision testing equipment and high-sensitivity metal detection systems, we have implemented a comprehensive quality control system, enabling full-process control and continuous improvement, to provide stable and secure insulation solutions for transformer clients globally. Adhering to our operational principles of "Top Quality, Excellent Service, and Integrity", we strive to advance innovation in transformer insulation materials, safeguarding the safe operation of global power equipment.

源于山东，服务世界。荣春木业，以匠心铸造可靠，以创新驱动发展。诚邀全球客户携手合作，共同为电力事业贡献坚实力量。

From Shandong to the World. Rongchun Wood builds reliability through craftsmanship, and drives development through innovation. We cordially invite global customers to collaborate together, to contribute steadfast strength to the power industry.

证书及专利 >>> CERTIFICATIONS & PATENTS



营业执照



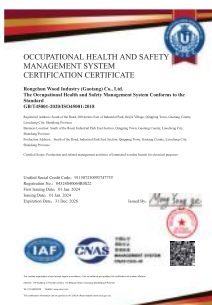
商标注册证



碳中和认证



ISO CERTIFICATES



三体系证书



一种热压机送料系统



一种电工层压木自动锯切装置



一种涂胶板的干燥装置



一种用于电工层压木板的
涂胶装置



一种干燥机热风回送装置



一种用于锯切的层压木板
固定工装



一种砂光机上料翻板装置



一种热压机送料机构



一种层压木板的切料装置



一种片材陈晾层架机构



一种单板打齿装置



一种单板斜磨装置



一种可调木板磨削装置



一种层压木板夹固机构



检测报告

主要产品

MAIN PRODUCTS

电工层压木板 Electrical Laminated Wood



电工层压木板是一种广泛应用于变压器、互感器的高性能绝缘与结构支撑材料。其具备密度适中、机械强度优异、真空干燥适应性好、与变压器油相容性佳、易机械加工等特性。凭借与变压器油相近的介电常数及合理的绝缘配合设计，可在 105°C 变压器油中长期稳定运行。

Electrical Laminated Wood is a high-performance insulation and support material widely used in oil-immersed transformers. It offers moderate density, excellent mechanical strength, good adaptability to vacuum drying, high compatibility with transformer oil, and superior machinability. With a dielectric constant similar to transformer oil and rational insulation coordination design, it ensures long-term stable operation in 105°C transformer oil.

在油浸式变压器中，该材料已广泛替代钢板、绝缘纸板及环氧基板材，用于制造上下压板、引线支架、铁轭垫块等关键部件；在互感器中则用于精密夹件制造，显著降低设备自重与材料成本。我公司精选桦木、榉木优质木材，经蒸煮、旋切、干燥、涂覆特种绝缘胶粘剂后，高温高压层压成型。

In oil-immersed transformers, electrical laminated wood extensively replaces steel plates, insulating pressboards, and epoxy-based laminates for manufacturing key components such as clamping boards, wire supports, and stepped spacers. In instrument transformers, it is used to produce precision clamping components, significantly reducing overall equipment weight and material costs. Our company selectively uses high-quality imported birch and beech wood, which undergoes a meticulous manufacturing process including steaming, rotary cutting, drying, coating with special insulating adhesives and laminated under high temperature and pressure.

我公司提供全系列解决方案：

经济型电工层压木板：适用于 35kV 及以下变压器。

标准型电工层压木板：适用于 110kV 及以下变压器。

榉木增强型电工层压木板：适用于 110kV 以上、220kV 变压器，兼容 330kV~750kV 变压器关键部位使用。

高密度电工层压木板：密度在 1.2 以上的，适用于高铁牵引变压器及抗变强度要求高的特色类型变压器中使用。

We offer a full range of insulation solutions:

Value-Grade Electrical Laminated Wood: Suitable for transformers up to 35kV.

Standard-Grade Electrical Laminated Wood: Suitable for transformers up to 110kV.

Beech-Enhanced Electrical Laminated Wood: Designed for transformers ranging from 110kV to 220kV, and compatible with key components in 330kV–750kV transformers.

High-Density Electrical Laminated Wood: With a density above 1.2, suitable for high-speed rail traction transformers and other special transformers requiring high mechanical strength.



成型件 Transformer Insulation Components

利用我公司自产的高档电工层压木，经过 CNC 智能数控加工而成。加工精度高，质量稳定可靠。

Intelligent CNC machining of our self-produced premium electrical laminated wood guarantees high precision and consistently reliable quality.

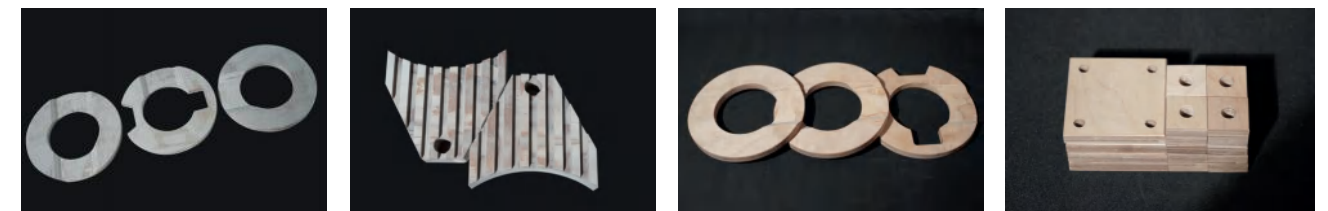
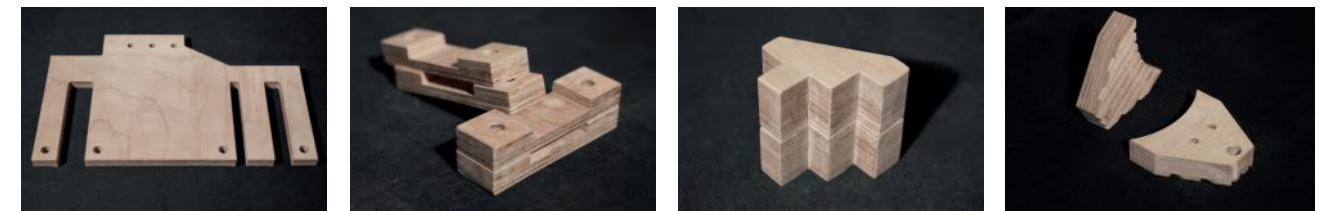
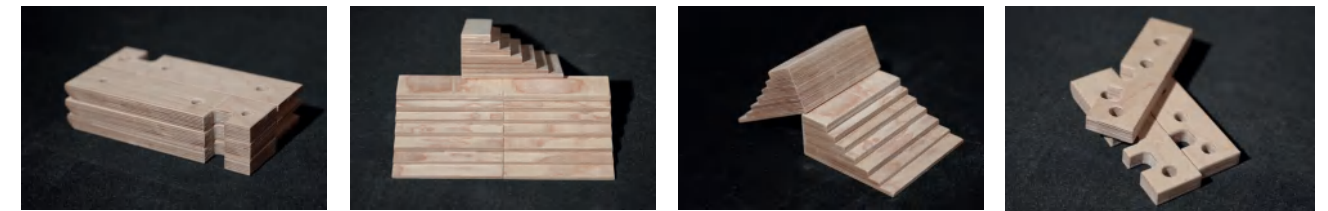
圆棒 Round Rods



压环 Laminated Rings



垫块 Stepped Spacers



引线支架 Wire Clamping & Supporters



生产工艺 ▶▶
PRODUCTION PROCESS

斜磨
Angular Grinding

01



低温干燥
Low-Temperature Drying

02



截锯
Cutting

05



金属探测
Metal Detection

06



组坯
Assembly

03



热压
Hot Pressing

04



打包
Packaging

07



数控加工中心
CNC Machining Center

08



产品标准

PRODUCT STANDARD

依据现行标准即 GB/T 20634 及 IEC 61061 标准
According to GB/T 20634 and IEC 61061 standards.

1. 规格（单位：mm）
Dimension (Unit: mm)

板材 Board	3000X1500X10~120	3300X1700X10~120
	2000X1000X10~120	2500X1200X10~120
	2000X2000X10~120	2500X2500X10~120
圆棒 Round Rods	2000X $\varnothing$ 6~ $\varnothing$ 25	2000X $\varnothing$ 6~ $\varnothing$ 25
可定制特殊规格产品 Customization for special specifications available.		

2. 板材的平直度（单位：mm）
Board Flatness (Unit: mm)

标称厚度 Normal Thickness	板材上表面任何一点偏离直尺的最大间距 Maximum Distance of Points on Veneer Surface from the Ruler	
	500 直尺 500 ruler	1000 直尺 1000 ruler
≤ 15	2.0	4.0
$> 15 \dots \leq 25$	1.5	3.0
$> 25 \dots \leq 60$	1.0	2.0
> 60	1.0	1.0

3. 环材的平直度（单位：mm）
Ring Flatness (Unit: mm)

标称厚度 Normal Thickness	环材上表面任何一点偏离直尺的最大间距 Maximum Distance of Points on Ring Surface from the Ruler	
	500 直尺 500 ruler	1000 直尺 1000 ruler
≤ 15	2.5	6.0
$> 15 \dots \leq 25$	2.0	4.0
$> 25 \dots \leq 60$	1.5	2.0
> 60	1.0	1.5

4. 外观质量
Appearance Quality

项目 Item	允许范围 Allowed Range
鼓泡 Swelling	不允许 Not Allowed
裂缝 Cracking	
死节 Dead knot	
粘附异物 Foreign-body Adhering	
虫孔 Insect hole	
腐朽 Rot	
污染 Contamination	允许轻微存在，需不影响使用 A few allowed, not affect in using
擦伤 Bruising	
压痕 Indentation	
颜色不均及色斑 Color variegation and stain	≤ 3
每平方米表面上补片、补条个数 Number of patches per square meter on surface	

5. 电工层压木板技术指标

Technical Indicators of Electrical Laminated Wood

性能 Capability		单位 unit	型号 Model								
			标准 Standard	板材技术指标 Technical Index of Veneer					环材技术指标 Technical Index of Ring		
				GB/T 20634	P3B	C1B	C2B	C3B	C4B	T2B	
			IEC 61061	P3R		C2R	C3R	C4R	T2R		T4R
											
表观密度 Apparent Density		g/cm³		1.1~1.2	0.7~0.9	0.9~1.1	1.1~1.2	1.2~1.3	0.9~1.1		1.2~1.3
含水率 Moisture Content		%		≤ 6	≤ 6	≤ 6	≤ 6	≤ 6	≤ 6		≤ 6
垂直层向弯曲强度 Flexural Strength Perpendicular to Laminations	A 向 A-Direction	MPa		≥ 150	≥ 45	≥ 55	≥ 65	≥ 80	直径 Diameter ≥ 1000mm	≥ 100	≥ 140
	B 向 B-Direction		直径 Diameter ≤ 1000mm						≥ 90	≥ 125	
垂直层向弯曲弹性模量 Apparent Modulus of Elasticity Perpendicular to Laminations	A 向 A-Direction	GPa		≥ 14	≥ 4.5	≥ 6	≥ 8	≥ 9	≥ 10		≥ 13
	B 向 B-Direction		-								
可压缩性 (20MPa 下) Compressibility (in 20MPa)	C	%		≤ 3	≤ 5	≤ 4	≤ 3	≤ 2.5	≤ 5		≤ 4
	Crev			≥ 70	≥ 70	≥ 70	≥ 70	≥ 70	≥ 70	≥ 70	
冲击强度 (侧向试验) Charpy Impact Strength (Side Test)	A 向 A-Direction	kJ/m³		≥ 35	≥ 6	≥ 10	≥ 13	≥ 15	≥ 25		≥ 35
	B 向 B-Direction			-							
层向剪切强度 Shearing Strength Test for Glue Line Bond		MPa		≥ 8	≥ 5	≥ 7	≥ 8	≥ 9	≥ 7		≥ 9
垂直层向电气强度 (90°C±2°C 油中) Vertical Layer Direction Electric Strength (in 90°C±2°C Oil)		kV/ mm		≥ 11	≥ 9	≥ 10	≥ 11	≥ 12	≥ 10		≥ 10
平行层向击穿电压 (90°C±2°C 油中) Parallel Layer Direction Puncture Voltage (in 90°C±2°C Oil)		kV		≥ 50	≥ 50	≥ 50	≥ 50	≥ 50	≥ 50		≥ 50
干燥后收缩率 Shrinkage after Drying	A 向 A-Direction	%		≤ 0.2	≤ 0.3	≤ 0.3	≤ 0.3	≤ 0.3	周长 Girth	≤ 0.5	≤ 0.5
	B 向 B-Direction			≤ 0.5	≤ 0.3	≤ 0.3	≤ 0.3	≤ 0.3			
	厚度 Thickness			≤ 3	≤ 3	≤ 3	≤ 3	≤ 3	≤ 3		≤ 3
吸油性 Oil Absorption		%		≥ 8	≥ 20	≥ 15	≥ 8	≥ 5	≥ 15		≥ 5
对液体电介质的污染 (50hz, Δtanδ) Contamination of Liquid Dielectrics		-		≤ 0.1	≤ 0.1	≤ 0.1	≤ 0.1	≤ 0.1	≤ 0.1		≤ 0.1

6. 标称厚度及其允许偏差 (单位: mm)

Normal Thickness and Tolerance (Unit: mm)

标称厚度 Normal Thickness	允许偏差 Tolerance
≤ 10	± 1.4
> 10...≤ 15	± 1.6
> 15...≤ 20	± 1.8
> 20...≤ 25	± 2.0
> 25...≤ 30	± 2.2
> 30...≤ 40	± 2.6
> 40...≤ 60	± 3.0
> 60...≤ 100	± 4.0
> 100...≤ 150	± 4.0

7. 板材标称长度和宽度及其允许偏差 (单位: mm)

Normal Length and Width, and Tolerance of Board (Unit: mm)

长度和宽度 Length and Width	允许偏差 Tolerance
> 100...≤ 250	± 0.8
> 250...≤ 500	± 1.0
> 500...≤ 1000	± 2.0
> 1000...≤ 2000	± 3.0
> 2000	± 4.0

8. 环材标称直径及其允许偏差（单位：mm）

Normal Diameter and Tolerance of Ring (Unit: mm)

标称直径 Normal Diameter	允许偏差 Tolerance
> 250...≤ 500	± 1.0
> 500...≤ 1000	± 2.0
> 1000...≤ 2000	± 3.0
> 2000	± 4.0

9. 包装与贮存

Package and Storage

外面用衬有防潮材料的木条箱，框架木箱或符合运输要求、有足够强度的其它材料包装。每个包装箱毛重不宜超过 3000 公斤。

The products shall be packaged in wooden crates, framed wooden cases, or other materials of sufficient strength that meet transportation requirements. All packaging must be lined with moisture-proof material. The gross weight of each single package shall not exceed 3,000 kg.

产品应贮存在不超过 40℃、干燥而洁净的室内，并应平放在离地不低于 50mm 的垫板上，不得靠近火源、热源，应防潮湿。

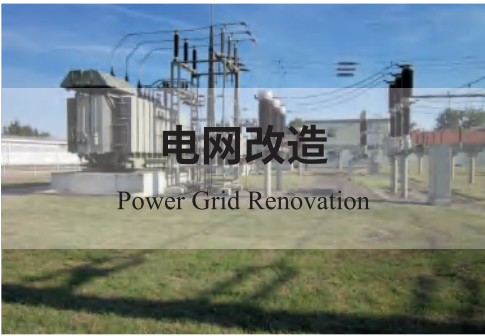
Products shall be stored in a clean, dry indoor area with a maximum ambient temperature of 40°C. They must be placed flat on pallets with a minimum clearance of 50 mm from the floor, and must be kept away from sources of fire and heat, and protected from moisture.

应用场景
APPLICATIONS



务实诚信 和谐共赢

Dedication and Integrity | Win-Win Collaboration



以人为本 团结奋进

People-Centric Approach | Unity and Striving



节能增效 开拓创新

Efficiency in Energy | Innovation for Progress



优质产品 满意服务

Premium Products | Satisfying Services