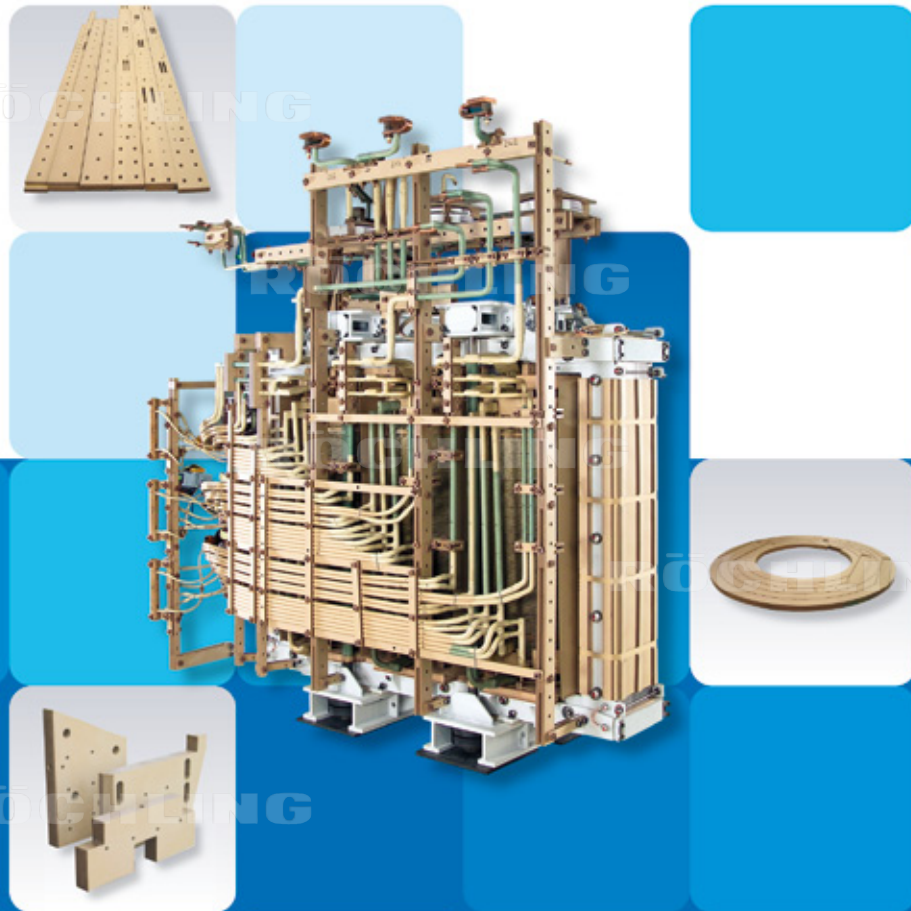




Trafoboard®

浸油高压变压器用的高效绝缘组件

High-performance insulation components
for oil filled power transformers



03/2020

Trafoboard®

压制板
Laminated Pressboard

浸油高压变压器用的高效绝缘组件

High-performance insulation components for oil filled power transformers

一个世纪的经验

劳士领工程塑料公司已生产用于高电压变压器的绝缘材料 **Lignostone® Transformerwood®** 近一个世纪。

这些优良的材料在全球变压器行业内享有良好的声誉。

劳士领高质量层压纸板 **Trafoboard® HD-PH** 使其原有的绝缘材料产品得以更加完善，该产品用于高电压变压器的绝缘部件。

层压纸板 **Trafoboard® HD-PH** 代表了高质量，具有优秀的电气和机械性能，高化学纯度及高精度公差。

Trafoboard® HD-PH

层压纸板 **Trafoboard® HD-PH** 密度为 1.15 – 1.35 g/cm³ 按照国际电工标准 IEC60641 由高纯度纤维压制的单板组成，单板按照 IEC 60763 LB 3.1A.2. 要求由酚醛胶紧固永久粘合在一起。

预制件专家

本公司的优势是按照客户提供的图纸生产预制件，我们使用多功能、现代的、数控铣床和自动装置。

机加工件尺寸

Trafoboard® HD-PH

4150 x 2150 mm x 10...120 mm
4000 x 1500 mm x 10...120 mm
3200 x 2100 mm x 10...120 mm
2000 x 1000 mm x 10...120 mm
2000 x 2000 mm x 10...120 mm
2000 x 1500 mm x 10...120 mm
3000 x 1500 mm x 10...120 mm
环材最大至 Ø 3100 mm
平台最大至 3150 x 3150 mm

如需要加工件厚度可大于 120 mm

The experience of one century

For almost one century Röchling Engineering Plastics SE & Co. KG has been manufacturing the insulation material **Lignostone® Transformerwood®** for use in high-voltage transformers. This outstanding material enjoys an excellent reputation within the international transformer industry.

With **Trafoboard® HD-PH** Röchling now complete their range of insulation materials to a high-quality laminated pressboard for insulation components in oil-filled high-voltage transformers. **Trafoboard® HD-PH** represents a high level of quality, excellent electrical and mechanical properties, high chemical purity and close tolerances.

Trafoboard® HD-PH

Trafoboard® HD-PH has a density of 1.15 – 1.35 g/cm³ and consists of highly densified pressboard layers made of pure cellulose according to IEC 60641, which are bonded permanently by means of phenolic glue according to IEC 60763 type LB 3.1A.2.

Specialist for machined components

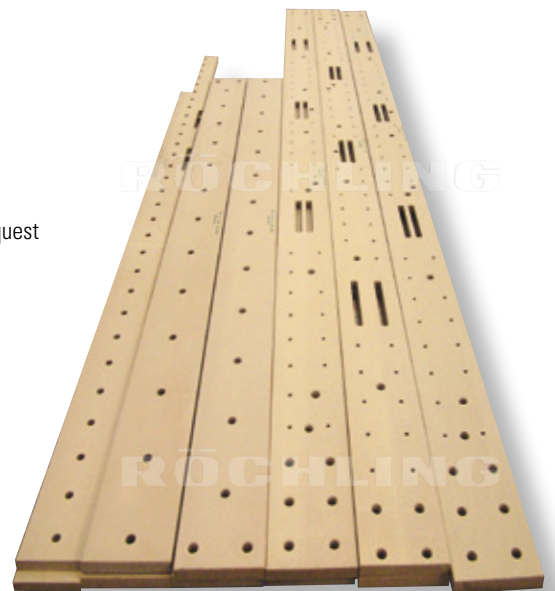
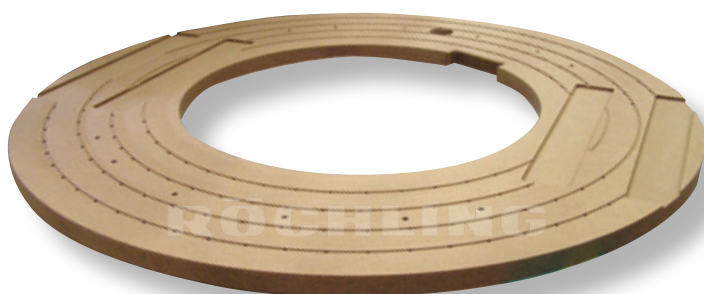
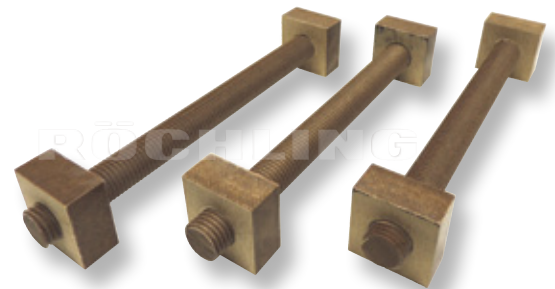
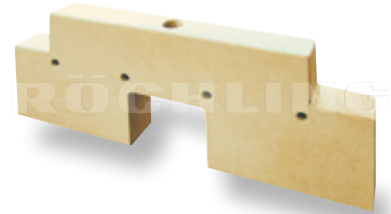
The production of CNC machined components with close tolerances as per customers' drawings is our strength. We utilize versatile modern CNC special and automatic machines.

Dimensions for machined components

Trafoboard® HD-PH

4150 x 2150 mm x 10...120 mm
4000 x 1500 mm x 10...120 mm
3200 x 2100 mm x 10...120 mm
2000 x 1000 mm x 10...120 mm
2000 x 2000 mm x 10...120 mm
2000 x 1500 mm x 10...120 mm
3000 x 1500 mm x 10...120 mm
Rings up to Ø 3100 mm
Platforms up to 3150 x 3150 mm

Components thicker than 120 mm on request



Trafoboard® HD-PH 技术参数 Technical values		测试方法 Test method	单位 Unit	Trafoboard® HD-PH	
粘接类型 Glue type		—	—	酚醛 Phenolic	
型号符合的标准 Type according to		IEC 60763	—	LB 3.1A.2	
密度 Density		IEC 60763-2	g/cm ³	1,15 – 1,35	
机械特性 Mechanical properties	弯曲强度 Flexural strength	⊥	DIN EN ISO 178		
	机械方向 Machine direction	MD	MPa	120	
	机械横向 Cross machine direction	CMD	MPa	110	
	从弯曲试验得出的弹性模数 Flexural modulus of elasticity	⊥	DIN EN ISO 178		
	机械方向 Machine direction	MD	GPa	13,0	
	机械横向 Cross machine direction	CMD	GPa	10,5	
物理特性 Physical properties	收缩 Shrinkage		IEC 60763-2		
	机械方向 Machine direction	MD	%	0,20	
	机械横向 Cross machine direction	CMD	%	0,30	
	厚度 Thickness		%	1,50	
	可压紧性 Compressibility		IEC 60763-2		
	可压紧性 Compressibility	C	%	2,6	
	回弹 Reversible part of compressibility	C _{rev}	%	93	
	湿度 Moisture content		IEC 60763-2	≤ 5	
	吸油 Oil absorption		IEC 60763-2	%	10
	水提取物 pH 值 pH of aqueous extract		IEC 60763-2	pH	6,5
电气特性 Electrical properties	水提取物导电性 Conductivity of aqueous extract		IEC 60763-2	mS/m	7,1
	油中的击穿强度 ¹⁾ Electric strength in oil ¹⁾	//	IEC 60243-1	kV/mm	≥ 9

¹⁾ 试样尺寸 : 50 x 10 x 10 mm

¹⁾ Sample size: 50 x 10 x 10 mm

备注

上述参数值是平均值, 通过目前统计试验检测确定。上述数据仅是提供信息, 除非在销售合同中另有明确协议, 才具有约束力。

Remark

The data mentioned in this brochure are average values ascertained by current statistical returns and tests. The above data is provided purely for information and shall not be regarded as binding unless expressly agreed in a contract of sale.



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