

MCS-2-1



Compressed Laminated
wood

For
Tank Support

储罐支撑木

Revised: 07/2024



产品介绍

Product Introduction

MCS-2-1储罐支撑层压木是以山毛榉作为原材料，采用先进的浸胶工艺制作而成的低温储罐隔冷支撑木。是国内首款可以在最低-196℃环境下，使用的储罐支撑系统的耐低温绝缘隔冷材料。

MCS-2-1 Compressed Laminated Wood Tank Support is a low-temperature Tank insulation support technology made of beech wood as raw material and manufacture insulation in China and insulation material for tank support systems that can be used at a temperature of -196℃

产品认证

Product Introduction

MCS-2-1储罐支撑木已取得

DNV、ABS、CCS、LR、KR、BV船级社颁发的产品认可证书

MCS-2-1 Compressed Laminated Wood Tank Support has obtained product approval certificates issued by DNV、ABS、CCS、LR、KR、BV classification societies

产品应用

Product Applications

MCS-2-1储罐支撑层压木应用于LNG、LPG、LEG等各类船舶液货罐隔冷系统的安装。如，固定支座、滑动支座、防摇、防倾及止浮装置、平台支座衬垫、管道隔冷衬板及低温模块支撑等。

MCS-2-1 Compressed Laminated Wood Tank Support is applied to the installation of insulation systems for various ship cargo tanks such as LNG,LPG,LEG For example, fixed supports, sliding supports, anti-sway, anti-tilting and anti-floating devices, platform support pads, pipe insulation pads and low-temperature module supports

产品性能

Product Performance

MCS-2-1储罐支撑层压木具有极高的机械强度、线性膨胀系数低、热传导率低、摩擦系数低及优异的防水性和抗腐蚀性。

MCS-2-1 Compressed Laminated Wood Tank Support has extremely high mechanical strength low linear expansion coefficient, low thermal conductivity, low friction coefficient and excellent water resistance and corrosion resistance



项目检测 Project testing	温度 Temperature	标准 Test method	单位 Unit	数值 Data
密度 Desity		ISO 1183	g / cm ³	1.30-1.35
吸水率 Water absorption		ISO 62	%	≤0.5
弯曲强度 Flexural stengh	⊥ +23℃	ISO 178	Mpa	≥185
压缩强度 Comressive strength	⊥ +23 °C	ISO 604	Mpa	≥240
压缩强度 Comressive strength	II +23 °C	ISO 604	Mpa	≥170
压缩强度 Comressive strength	⊥ -170 °C	ISO 604	Mpa	≥240
压缩强度 Comressive strength	⊥ -196℃	ISO 604	Mpa	≥240
剪切强度 Shear strength	II +23 °C	DIN 7707	Mpa	≥25
剪切强度 Shear strength	⊥ -170℃	DIN 7077	Mpa	≥80
弹性模量 Modulus of elasticity	⊥ +23 °C	ISO 178	Mpa	≥15000
弹性模量 Modulus of elasticity	II -196 °C	ISO 178	Mpa	≥ 12300
导热系数 Thermal conductivity	⊥ -170 °C	ISO 8302	W/ (m·k)	0.105
导热系数 Thermal conductivity	⊥ -110 °C	ISO 8302	W/ (m·k)	0.151
导热系数 Thermal conductivity	⊥ + 20 °C	ISO 8302	W/ (m·k)	0.217
导热系数 Thermal conductivity	⊥ +50 °C	ISO 8302	W/ (m·k)	0.229
导热系数 Thermal conductivity	II -170 °C	ISO 8302	W/ (m·k)	0.164
线性膨胀系数 Coefficient of expansion	II	ASTM D696	mm/mm/°C	≤25.0*10 ⁻⁶
线性膨胀系数 Coefficient of expansion	⊥	ASTM D696	mm/mm/°C	≤82.0*10 ⁻⁶
压缩应变 Compression strain	⊥	ISO 604	%	11
压缩模量 Compression Modulus	II	ISO 604	Gpa	12
压缩模量 Compression Modulus	⊥	ISO 604	Gpa	4.8
温度范围 Temperature range		CP-009-3.2	°C	+60 ~ -196

⊥ = 垂直于层面方向 Perpendicular laminations

II = 平行于层面方向 Parallel to laminations