

GENERAL DESCRIPTION

Specially developed for LPG and LNG applications, Lignostone® Cryogenic grade is manufactured from beech veneers, impregnated under vacuum with thermosetting synthetic resin and densified under heat and pressure. The particular properties of Lignostone® make it an ideal material for load bearing cryogenic supports.

FEATURES & BENEFITS

- Low thermal conductivity
- High mechanical strength
- Resistance to abrasion and wear
- Resistance to physical and chemical decay
- Temperature range between -196°C to +90°C
- Low moisture absorption

APPLICATIONS

- Anchor supports
- Base supports
- Trunnion supports
- Cable cleats
- Line stops
- Cold shoes
- Cold insulation blocks



GENERAL INFORMATION

| | |
|---------------|---|
| Material | Densified laminated wood impregnated with thermoset phenolic resins |
| Colour | Brown / Wood |
| Specification | KP 20227 |

| TECHNICAL DATA | TEST METHOD | UNITS | VALUE |
|--|-------------|-------------------|-----------|
| General | | | |
| Specific gravity | IEC 61061 | g/cm ³ | <1.37 |
| Water absorption | ISO 62 | % | <0.5 |
| Mechanical Properties | | | |
| Bending strength RT (perpendicular) | ISO 178 | N/mm ² | 140 |
| Bending strength -196°C (perpendicular) | ISO 178 | N/mm ² | 110 - 160 |
| Modulus of elasticity in flexion (perp.) | ISO 178 | N/mm ² | 15,000 |
| Modulus of elasticity in flexion -196°C (perp) | ISO 178 | N/mm ² | 16,000 |
| Compressive strength RT (perpendicular) | ISO 604 | N/mm ² | 230 |
| Compressive strength RT (parallel) | ISO 604 | N/mm ² | 170 |

| TECHNICAL DATA | TEST METHOD | UNITS | VALUE |
|---|-------------|------------------------------------|-------|
| Compressive strength -196°C (parallel) | ISO 604 | N/mm ² | 360 |
| Shearing strength RT (perpendicular) | IEC 60893 | N/mm ² | >70 |
| Shearing strength RT (parallel) | IEC 60893 | N/mm ² | 25 |
| Impact strength RT (perpendicular) | ISO 179 | kJ/m ² | 25 |
| Impact strength RT (parallel) | ISO 179 | kJ/m ² | 20 |
| Thermal Properties | | | |
| Thermal conductivity | DIN 52612 | W/mK | -0.30 |
| Thermal conductivity -100°C | ISO 8302 | W/mK | -0.25 |
| Coefficient of linear expansion (perpendicular) | METTLER TMA | 10 ⁻⁶ x K ⁻¹ | ~160 |
| Coefficient of linear expansion (parallel) | METTLER TMA | 10 ⁻⁶ x K ⁻¹ | ~15 |

MATERIAL SPECIFICATIONS

Standard Width x Length (mm)

1000 x 2000

997 x 1000

Standard Nominal Thickness (mm)

50 to 70

SIZING & AVAILABILITY

The above table shows the most commonly requested products in this range. Should you require something outside of these parameters, please contact your local sales representative or our customer service team.

MACHINING & FABRICATION

Insulect's manufacturing capabilities form a key part of the trusted service we offer our customers. Our two modern, well equipped facilities – in Brisbane and Melbourne – work with a wide range of electrical, thermal and mechanical materials – including plastics, composites and cellulose-based products.

We offer short run, specialty or volume based machining and fabrication for almost any application and can produce cut-to-order sheets or finished components. Coupled with our highly-trained and experienced team, we are able to deliver on the most complex of customer requirements.