

# Round Tubes

## ALTHERM 520 T



- **Outstanding high mechanical strength also at elevated temperatures**
- **Excellent electrical properties at high relative humidity**
- **Good electric strength properties at both dry and humid conditions**

|                                                | Unit               | Value  | Test norm        |
|------------------------------------------------|--------------------|--------|------------------|
| <b>Mechanical properties</b>                   |                    |        |                  |
| Flexural strength                              | MPa                | 350    | EN 61212-2       |
| E-Modulus                                      | MPa                | 19000  | ISO 178          |
| Compressive strength axial                     | MPa                | 220    | EN 61212-2       |
| Cohesion between layers                        | MPa                | 500    | EN 61212-2       |
| <b>Electrical properties</b>                   |                    |        |                  |
| Insulation resistance after immersion in water | Ohm                | 3.0E+8 | DIN EN 62631-3-3 |
| Breakdown voltage // 90°C in oil               | kV                 | 75     | IEC 60243-1      |
| Electric strength ⊥ 90°C in oil                | kV/mm              | 15     | IEC 60243-1      |
| <b>Physical properties</b>                     |                    |        |                  |
| Density                                        | g/cm <sup>3</sup>  | 1.8    | ISO 1183         |
| Water absorption (24 h 23°C)                   | mg/cm <sup>2</sup> | 0.5    | ISO 62           |
| <b>Thermal properties</b>                      |                    |        |                  |
| Temperature index (TI)                         | °C                 | 180    | IEC 60216        |

### Description

Altherm 520 T is a composite tube made of glass fabric with high temperature epoxy resin material especially developed for applications in aluminium smelters.

### RoHS Directive

Hazardous products listed in the EU-directive 2011/65/EU (RoHS-directive), annex II and amendment 2015/863/EU are not used as ingredients in this material.

### Colour

Yellow brown

### Application

Different parts of aluminium smelters:

- busbar electrical insulation
- superstructure support
- pot room thermal and electrical insulation
- pot conductor insulation

### Form of delivery

This type will be supplied in form of tubes and machined parts out of tubes.

Diameter ranges from 3,5 mm to 450 mm

The length is related to the diameter, standard length approx. 1.000 mm.  
Other diameters and lengths on request.

Tolerances acc. to DIN EN 61212-3-1.

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VRI Composites custom fabricates insulation materials to the exact specifications and drawings specified by our customers. We offer our customers the proper product for their specific application. A variety of dimensions and diameter sizes are available. Product colors vary according to material type.