

Product data sheet

ALUMINIUM COATED BASALT FIBRE

| Physical properties | Unit | Value | | | | | |
|--------------------------------|--------------------------|-------|-----|-----|-----|------|------|
| Density | g/cm ³ | 2.6 | | | | | |
| Monofilament diameter | µm | 23 | | | | | |
| Yarn count | Tex (DIN EN 12654) | 50 | 100 | 200 | 600 | 1200 | 2400 |
| Filaments/tex | - | 1 | 1 | 1 | 1 | 1 | 1 |
| Fibre volume ratio | Vol. - % | 50 | 50 | 50 | 50 | 50 | 50 |
| Mechanical properties | | | | | | | |
| Tensile modulus | GPa (DIN EN ISO 2062) | 70 | 70 | 70 | 70 | 70 | 70 |
| Breaking force | N (DIN EN ISO 3341) | 8.3 | 15 | 17 | 52 | 126 | 250 |
| Tensile elongation at break | % (DIN EN ISO 2062) | 1.3 | 1.1 | 1.5 | 0.9 | 1.0 | 1.0 |
| Thermal properties | | | | | | | |
| Melting temperature | °C | 660 | | | | | |
| Working temperature under load | °C | < 400 | | | | | |
| Them. conductivity | W/mK | 120 | | | | | |
| Coeff. of thermal expansion | *10 ⁻⁶ /°C | 5 | | | | | |
| Other properties | | | | | | | |
| Sizing | - | Epoxy | | | | | |
| Electrical resistance | Ω/m (ASTM B 193-20) | < 12 | < 8 | < 6 | < 3 | < 1 | < 1 |
| Carbon footprint | CO _{2-eq} /kg | 7.7 | | | | | |

The values in the data sheet apply only to this specific yarn. The data listed here is within the normal range of product properties but should not be used to establish specification limits nor used alone as a basis for design. The underlying tests were conducted at standard environment of 20 °C and 60 % humidity.

This information and our technical application advice - whether verbal, written or by way of trials - are given to the best of our knowledge, but are deemed to be non-binding advice only, also with regards to any third-party property rights. Our advice does not exempt you from verifying the information provided - especially in our safety data sheets and technical information - and to test our products as to their suitability for the intended processes and purposes. The application, use and processing of our products and the products manufactured by you on the basis of our application advice are beyond our control and are, therefore, exclusively your own responsibility. The sale of our products and our advice are subject to our General Terms and Conditions of Sale and Delivery as amended from time to time.

Caution: Do not use this product for medical applications that require permanent implantation in the human body.