# Technical Specification Sheets

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**Chemical Designation**
PC (Polycarbonate)

**Colour**
natural

**Density**
1.52 g/cm$^3$

**Fillers**
carbon fibres

**Main features**
- high dimensional stability
- good surface appearance
- low coefficient of thermal expansion
- very high stiffness
- very high strength

**Target Industries**
- automotive industry
- mechanical engineering
- safety engineering
- sporting goods

The material is in the phase of further development. The characteristic values of this product may change.

| General material information | parameter | value | unit | norm | | comment |
|---|---|---|---|---|---|---|
| Fibre type | | Carbon HT 3k | | - | | |
| Fibre architecture | | Twill 2/2 | | - | | |
| Fibre areal weight | | 245 | g/m² | - | | |
| Fibre volume content | | 45 | % | - | | |
| Resin weight content | | 44.9 | % | - | | |
| Areal weight finished product | | 445 | g/m² | - | | |
| Material widths | | 1270 | mm | - | | |
| ply thickness (consolidated) | | 0.3 | mm | - | | |
| **Mechanical properties** | **parameter** | **value** | **unit** | **norm** | | **comment** |
| Tensile strength | | 400 | MPa | ISO 527-4 | 1) | (1) measured on pressed plate<br>(2) measured on pressed plate<br>(3) measured on pressed plate<br>(4) measured on pressed plate |
| Modulus of elasticity (tensile test) | | 44000 | MPa | ISO 527-4 | 2) | |
| Flexural strength | | 600 | MPa | ISO 14125 | 3) | |
| Modulus of elasticity (flexural test) | | 42000 | MPa | ISO 14125 | 4) | |
| **Thermal properties** | **parameter** | **value** | **unit** | **norm** | | **comment** |
| Glass transition temperature | | 143 | °C | - | | (1) approximate value |
| Service temperature | short term | 140 | °C | - | | |
| Service temperature | long term | 120 | °C | - | | |
| Thermal expansion (CLTE) | in 0° and 90° direction | 5 | $10^{-6}$ K$^{-1}$ | - | 1) | |
| **Predrying** | **parameter** | **value** | **unit** | **norm** | | **comment** |
| Drying temperature | | 120 | °C | - | | |
| Drying time | | 3 | h | - | | |