# Technical Specification Sheets

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***Chemical Designation***
PA 6 (Polyamide 6)

***Colour***
natural

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

***Fillers***
glass fibres

***Main features***
- very good abrasion resistance
- electrically insulating
- very good mechanical strength

***Target Industries***
- automotive industry
- mechanical engineering
- oil and gas industry
- 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 | | E glass | | - | | |
| Fibre architecture | | Twill 2/2 | | - | | |
| Fibre areal weight | | 600 | g/m² | - | | |
| Fibre volume content | | 45 | % | - | | |
| Resin weight content | | 35.2 | % | - | | |
| Areal weight finished product | | 926 | g/m² | - | | |
| Material widths | | 1270 | mm | - | | |
| ply thickness (consolidated) | | 0.53 | mm | - | | |
| ***Mechanical properties*** | ***parameter*** | ***value*** | ***unit*** | ***norm*** | | ***comment*** |
| Flexural strength | | 570 | MPa | ISO 14125 | 1) | (1) measured on pressed plate<br>(2) measured on pressed plate |
| Modulus of elasticity (flexural test) | | 21800 | MPa | ISO 14125 | 2) | |
| ***Thermal properties*** | ***parameter*** | ***value*** | ***unit*** | ***norm*** | | ***comment*** |
| Glass transition temperature | | 49 | °C | DIN EN ISO 11357 | | (1) approximate value |
| Melting temperature | | 218 | °C | DIN EN ISO 11357 | | |
| Service temperature | short term | 180 | °C | - | | |
| Service temperature | long term | 100 | °C | - | | |
| Thermal expansion (CLTE) | in 0° and 90° direction | 10 | $10^{-6}$ K $^{-1}$ | - | 1) | |
| ***Predrying*** | ***parameter*** | ***value*** | ***unit*** | ***norm*** | | ***comment*** |
| Drying temperature | | 80 | °C | - | | |
| Drying time | | 6-8 | h | - | | |