

TECAMID 66 GF35 natural - Stock Shapes (rods, plates, tubes)

Chemical Designation

PA 66 (Polyamide 66)

Colour

ivory opaque

Density

1.4 g/cm³

Fillers

glass fibres

Data generated directly after machining
(standard climate Germany).

Main features

- very high stiffness
- resistant to many oils, greases and fuels
- good wear properties
- very high strength
- high dimensional stability
- good heat deflection temperature
- good weldable and bondable

Target Industries

- aircraft and aerospace technology
- mechanical engineering
- automotive industry

| Mechanical properties | parameter | value | unit | norm | comment |
|---------------------------------------|----------------------------------|------------------|-------------------|----------------------|--|
| Tensile strength | 50mm/min | 103 | MPa | DIN EN ISO 527-2 | (1) For tensile test: specimen type 1b |
| Modulus of elasticity (tensile test) | 1mm/min | 5500 | MPa | DIN EN ISO 527-2 | 1) |
| Elongation at yield (tensile test) | 50mm/min | 7 | % | DIN EN ISO 527-2 | |
| Elongation at break (tensile test) | 50mm/min | 11 | % | DIN EN ISO 527-2 | |
| Flexural strength | | 150 | MPa | DIN EN ISO 178 | |
| Modulus of elasticity (flexural test) | | 5100 | MPa | DIN EN ISO 178 | |
| Impact strength (Charpy) | | 85 | kJ/m ² | DIN EN ISO 179-1eU | |
| Notched impact strength (Charpy) | | 5 | kJ/m ² | DIN EN ISO 179-1eA | |
| Shore hardness | D | 84 | | DIN EN ISO 868 | |
| Thermal properties | parameter | value | unit | norm | comment |
| Glass transition temperature | | 48 | °C | DIN EN ISO 11357 | 1) |
| Melting temperature | | 254 | °C | DIN EN ISO 11357 | |
| Service temperature | short term | 170 | °C | | 2) |
| Service temperature | long term | 110 | °C | | |
| Electrical properties | parameter | value | unit | norm | comment |
| surface resistivity | Silver electrode, 23°C, 12% r.h. | 10 ¹⁴ | | DIN IEC 60093 | (1) Due to moisture uptake of the material the electrical insulation properties cannot be 100% guaranteed, despite single measurements suggesting otherwise. |
| volume resistivity | Silver electrode, 23°C, 12% r.h. | 10 ¹⁴ | | DIN IEC 60093 | 1) |
| Other properties | parameter | value | unit | norm | comment |
| Resistance to hot water/ bases | | (+) | | - | 1) |
| Resistance to weathering | | (+) | | | |
| Flammability (UL94) | corresponding to | HB | | DIN IEC 60695-11-10; | 2) |

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