

TECAMID 6 ID blue - Stock Shapes (rods, plates, tubes)

Chemical Designation

PA 6 (Polyamide 6)

Colour

blue grey opaque

Density

1.24 g/cm³

Fillers

detectable filler

Main features

- high toughness
- resistant to many oils, greases and fuels
- electrically insulating
- good wear properties
- good weldable and bondable
- good slide and wear properties
- high strength
- good machinability

Target Industries

- electronics
- food technology
- mechanical engineering

Data generated directly after machining
(standard climate Germany).

| Mechanical properties | parameter | value | unit | norm | comment |
|--------------------------------------|----------------------------------|--------------------|-------------------|----------------------|--|
| Tensile strength | 50mm/min | 80 | MPa | DIN EN ISO 527-2 | (1) For tensile test: specimen type 1b |
| Modulus of elasticity (tensile test) | 1mm/min | 3600 | MPa | DIN EN ISO 527-2 | (2) For Charpy test: support span 64mm, norm specimen. n.b. = not broken |
| Tensile strength at yield | 50mm/min | 80 | MPa | DIN EN ISO 527-2 | |
| Elongation at yield (tensile test) | 50mm/min | 4 | % | DIN EN ISO 527-2 | |
| Elongation at break (tensile test) | 50mm/min | 21 | % | DIN EN ISO 527-2 | |
| Impact strength (Charpy) | max. 7.5J | n.b. | kJ/m ² | DIN EN ISO 179-1eU | 2) |
| Notched impact strength (Charpy) | max. 7.5J | 4 | kJ/m ² | DIN EN ISO 179-1eA | |
| Shore hardness | D | 81 | | DIN EN ISO 868 | |
| Thermal properties | parameter | value | unit | norm | comment |
| Glass transition temperature | | 45 | °C | DIN EN ISO 11357 | 1) |
| Melting temperature | | 220 | °C | DIN EN ISO 11357 | |
| Service temperature | short term | 160 | °C | | 2) |
| Service temperature | long term | 100 | °C | | |
| Electrical properties | parameter | value | unit | norm | comment |
| surface resistivity | Silver electrode, 23°C, 12% r.h. | > 10 ¹³ | Ω | - | 1) |
| | | | | | (1) Specimen in 20mm thickness |
| Other properties | parameter | value | unit | norm | comment |
| Water absorption | 24h / 96h (23°C) | 0.3 / 0.6 | % | DIN EN ISO 62 | 1) |
| Resistance to hot water/ bases | | (+) | | - | 2) |
| Resistance to weathering | | - | | - | 3) |
| Flammability (UL94) | corresponding to | HB | | DIN IEC 60695-11-10; | 4) |
| | | | | | (1) Ø ca. 50mm, h=13mm (2) (+) limited resistance (3) - poor resistance (4) Corresponding means no listing at UL (yellow card). The information might be taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory. |

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