

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

### Chemical Designation

PA 66 (Polyamide 66)

### Colour

ivory opaque

### Density

1.4 g/cm<sup>3</sup>

### 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 <sup>2</sup> | DIN EN ISO 179-1eU   |                                                                                                                                                              |
| Notched impact strength (Charpy)      |                                  | 5                | kJ/m <sup>2</sup> | 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 <sup>14</sup> |                   | 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 <sup>14</sup> |                   | 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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