# PA-4.6

| Mechanical properties | Test method | Test environment | Unit | Value |
|---|---|---|---|---|
| Tensile strength | ISO 527 | yield, dry | MPa | 100 |
| Tensile strength | ISO 527 | yield, conditioned | MPa | 55 |
| Tensile strain | ISO 527 | break, dry | % | 25 |
| Tensile strain | ISO 527 | break, conditioned | % | >100 |
| Tensile modulus | ISO 527 | dry | GPa | 3,3 |
| Tensile modulus | ISO 527 | conditioned | GPa | 1,3 |
| Compression strength | ISO 604 | 1% deformation, dry | MPa | 23 |
| Creep strength | - - | $\sigma_{1/1000}$, 1% strain, 1000 h, dry | MPa | 22 |
| Creep strength | - - | $\sigma_{1/1000}$, 1% strain, 1000 h, conditioned | MPa | 7,5 |
| Impact strength | ISO 180 | Izod, notched, dry | $kJ/m^2$ | 8 |
| Impact strength | ISO 180 | Izod, notched, conditioned | $kJ/m^2$ | 25 |
| Impact strength | ISO 179 | Charpy, unnotched, dry | $kJ/m^2$ | no break |
| Impact strength | ISO 179 | Charpy, notched, dry | $kJ/m^2$ | 8 |
| Hardness | - - | Rockwell | - | M92 |

| Thermal properties | Test method | Test environment | Unit | Value |
|---|---|---|---|---|
| Service temperature | - - | continuous 5.000/20.000 h | °C | 155/135 |
| Service temperature | - - | short term | °C | 200 |
| Service temperature | - - | lower limit | °C | -40 |
| Melting point | ISO 3146 | - | °C | 295 |
| Heat distortion temperature | ISO 75 | 1,82 MPa | °C | 160 |
| Coefficient of linear thermal expansion | - - | 23-60 °C | $10^{-5}\,K^{-1}$ | 8 |
| Coefficient of linear thermal expansion | - - | 23-100 °C | $10^{-5}\,K^{-1}$ | 9 |
| Thermal conductivity | ASTM D257 | - | W/m,K | 0,30 |

| Electrical properties | Test method | Test environment | Unit | Value |
|---|---|---|---|---|
| Dielectric constant | IEC 60250 | ε, 50 Hz, dry | - | 3,8 |
| Dielectric constant | IEC 60250 | ε, 50 Hz, conditioned | - | 7,4 |
| Dielectric constant | IEC 60250 | ε, 1 MHz, dry | - | 3,4 |
| Dielectric constant | IEC 60250 | ε, 1 MHz, conditioned | - | 3,8 |
| Loss factor | IEC 60250 | tan δ, 50 Hz, dry | - | 0,009 |
| Loss factor | IEC 60250 | tan δ, 50 Hz, conditioned | - | 0,13 |
| Loss factor | IEC 60250 | tan δ, 1 MHz, dry | - | 0,019 |
| Loss factor | IEC 60250 | tan δ, 1 MHz, conditioned | - | 0,06 |
| Dielectric strength | IEC 60243 | dry | kV/mm | 25 |
| Dielectric strength | IEC 60243 | conditioned | kV/mm | 15 |
| Volume resistivity | IEC 60093 | dry | ohm cm | $>10^{14}$ |
| Volume resistivity | IEC 60093 | conditioned | ohm cm | $>10^{12}$ |
| Surface resistivity | IEC 60093 | dry | ohm | $>10^{13}$ |
| Surface resistivity | IEC 60093 | conditioned | ohm | $>10^{12}$ |

| Other properties | Test method | Test environment | Unit | Value |
|---|---|---|---|---|
| Density | ISO 1183 | - | $g/cm^3$ | 1,18 |
| Water absorption | - - | immersion, 24 h, 23 °C | % | 1,3 |
| Water absorption | - - | equilibrium, 23 °C, RH 50% | % | 2,8 |
| Water absorption | - - | saturation, immersion, 23 °C | % | 9,5 |
| Oxygen index | ISO 4589 | - | % | 24 |
| Flammability | UL 94 | - | - | HB |

The data presented are taken from our suppliers and respresent our best knowledge. The values are given in good faith. They should not constitute the basis for calculations, construction etc. The responsibility for veryfing material data rests with the end-user.