

|   |                |
|---|----------------|
| Material name, short description            | PA 6           |
| Material name, based on technical standards | Polyamide 6    |
| Density                                     | 1.14 g/cm³     |
| Color                                       |                |
| Compound code                               | PA 6 00.003-00 |

## Mechanical properties

|                                   |  |
|-----------------------------------|--|
| Modulus of elasticity & tension 1 | 3000 N/mm²<br>ISO 527                                      |
| Tensile strength                  | 80 N/mm²<br>ISO 527<br>dry conditions                      |
| Yield stress                      | 80 N/mm²<br>ISO 527<br>dry conditions                      |
| Elongation at rupture             | ≥ 50 %<br>ISO 527<br>dry conditions                        |
| Hardness test value               | 82 Shore D   |
| Impact strength                   | no break<br>ISO 179-1eU<br>-40 °C / +23 °C, dry conditions |
| Notch impact strength             | 70.00 kJ/m²<br>ISO 179/1eA<br>Charpy, dry conditions       |

## Other attributes

|                  |   |
|------------------|---|
| Water absorption | 8 %<br>ISO 62<br>stored in water at 23 °C |
|------------------|---|

## Thermal attributes

|   |  |
|---|--|
| Max. operating temperature short term     | 180 °C   |
| Coefficient of linear thermal expansion 1 | 70 - 100 * 10 <sup>-6</sup> K <sup>-1</sup><br>DIN 53752<br>dry conditions |
| Crystalline melting point                 | 220 °C<br>ISO 3146<br>Method A   |
| Heat deflection temperature 1             | ≥ 160 °C<br>ISO 75<br>Method A, dry conditions                             |
| Specific heat capacity                    | 1.7 J/(g·K)<br>IEC 1006<br>dry conditions                                  |
| Thermal conductivity                      | 0.23 W/(m·K)<br>Method A, dry conditions                                   |

## Electrical attributes

|                                 |  |
|---------------------------------|--|
| Comparative tracking index      | ≥ 600 KB<br>IEC 112<br>KA/KB Stufe, dry and wet conditions |
| Dielectric dissipation factor 1 | 0.023<br>IEC 250<br>1 MHz, dry conditions                  |
| Dielectric constant 1           | 3.5<br>IEC 250<br>1 MHz, dry conditions                    |
| Dielectric strength 1           | 100 kV/mm<br>IEC 243<br>dry conditions                     |
| Surface resistivity             | 10 <sup>13</sup> Ω<br>IEC 93<br>dry conditions             |
| Volume resistivity              | 10 <sup>15</sup> Ω*cm<br>IEC 93<br>dry conditions          |

In compliance with **RoHS** and **REACH** directives.

This information is based on our available data. These values are measured on standard test specimens and are within the normal tolerance range of material properties and do not represent guaranteed property values. Therefore they shall not be used for specification purposes. The customer is solely responsible for quality and suitability of material for his application. He has to test usage and processing prior to use. Angst+Pfister makes no guarantees for the suitability of the material for any given application and assumes no obligation or liability in connection with the information provided above.