

Technical Data Sheet

Sustamid® 6G grey

PA 6 G

Typical characteristics

- Good toughness
- High mechanical strength
- Good impact strength
- Good weldability
- High abrasion resistance
- Good machinability
- Good sliding properties
- High absorption of moisture depending on temperature and humidity

Typical industries

- Building industry
- Conveyor Technology & Automation
- Mechanical Engineering Industry
- Vehicle Construction
- Oil and Gas
- Food Industry
- Meat, Fish and Poultry Processing
- Bakery and Confectionery
- Wind Energy

| | Test method | Unit | Guideline value |
|---|-------------------|----------------------|-----------------|
| General properties | | | |
| Density | DIN EN ISO 1183-1 | g / cm ³ | 1,15 |
| Water absorption | DIN EN ISO 62 | % | 2,5 |
| Flammability (Thickness 3 mm / 6 mm) | UL 94 | | HB / HB |
| Mechanical properties | | | |
| Yield stress | DIN EN ISO 527 | MPa | 75 |
| Elongation at break | DIN EN ISO 527 | % | 45 |
| Tensile modulus of elasticity | DIN EN ISO 527 | MPa | 3400 |
| Notched impact strength | DIN EN ISO 179 | kJ / m ² | 3 |
| Shore hardness | DIN EN ISO 868 | scale D | 83 |
| Thermal properties | | | |
| Melting temperature | ISO 11357-3 | °C | 216 |
| Thermal conductivity | DIN 52612-1 | W / (m * K) | 0,25 |
| Thermal capacity | DIN 52612 | kJ / (kg * K) | 1,70 |
| Coefficient of linear thermal expansion | DIN 53752 | 10 ⁻⁶ / K | 80 |
| Service temperature, long term | Average | °C | -40 ... 110 |



| | Test method | Unit | Guideline value |
|--|-----------------------------|--------------------------|-----------------|
| Service temperature, short term (max.) | Average | °C | 170 |
| Heat deflection temperature | DIN EN ISO 75, Verf. A, HDT | °C | 95 |
| Electrical properties | | | |
| Dielectric constant | IEC 60250 | | 3,7 |
| Dielectric dissipation factor (50 Hz) | IEC 60250 | | 0,02 |
| Volume resistivity | DIN EN 62631-3-1 | $\Omega \cdot \text{cm}$ | 10^{15} |
| Surface resistivity | DIN EN 62631-3-2 | Ω | 10^{13} |
| Comparative tracking index | IEC 60112 | | 600 |
| Dielectric strength | IEC 60243 | kV / mm | 20 |

