APSOplast® PA 66

Application purpose and characteristics

Mechanical engineering, vehicle construction, electrical industry
High form stability, excellent sliding properties, high abrasion resistance

Product description

Material name, long description	Polyamide 66
Material name, short description	PA 66
Material Code	PA 66 00.001-00
Density	1.15 g/cm³

Mechanical characteristics

Elongation at break	Test value: 50 % Test norm: DIN EN ISO 527
Charpy impact strength	Test value: ≥3.0 kJ/m² Test norm: DIN EN ISO 179
Ball indentation hardness	Test value: 180 MPa Test norm: DIN EN ISO 2039-1
Shore hardness	Test value: 83 Shore D Test norm: DIN EN ISO 868
Yield stress	Test value: 85 MPa Test norm: DIN EN ISO 527
Modulus of elasticity and tension	Test value: 3300 MPa Test norm: DIN EN ISO 527

Thermal characteristics

Min. operating temperature	Test value: -30 °C
Max. operating temperature long term	Test value: 95 °C
Max. operating temperature short term	Test value: 170 °C
Coefficient of linear thermal expansion	Test value: 80 $10^{-6}K^{-1}$ Test norm: DIN 53752
Crystalline melting point	Test value: 260 °C Test norm: ISO 11357-3
Specific heat capacity	Test value: 1.7 kJ/kg*K Test norm: DIN 52612
Heat deflection temperature	Test value: 100 °C Test norm: DIN EN ISO 75 / A
Thermal conductivity	Test value: 0.23 W/m·K Test norm: DIN 52612-1

Electrical characteristics

Dielectric loss factor	Test value: 0.015 Test norm: IEC 60250 Test parameter: 50 Hz
Dielectric constant	Test value: 3.8 Test norm: IEC 60250
Dielectric strength	Test value: 25 kV/mm Test norm: IEC 60243
Volume resistivity	Test value: 10^{15} Ohm·cm Test norm: IEC 60093
Surface resistivity	Test value: 10^{13} Ohm Test norm: IEC 60093
Comparative tracking index	Test value: 600 Test norm: IEC 60112

Other characteristics

Flammability	Test value: HB / V2 Test norm: UL 94 Test parameter: Thickness 3 mm / 6 mm
Water absorption at saturation	Test value: 2.8 % Test norm: DIN EN ISO 62