APSOplast® PP grey

Engineering Plastic Technology
Technical Data Sheet

Application purpose and characteristics

Chemical engineering and tank building, ventilation and equipment manufacturing, pump engineering, food industry
High strength, high weldability, excellent chemical and corrosion resistance, suitable for direct food contact

Product description	
Material name, long description	Polypropylene - Homopolymer
Material name, short description	PP
Material Code	PP 00.001-01
Density	0.91 g/cm³
Color	grey

Mechanical properties	
Modulus of elasticity and tension	Test value: 1700 MPa Test norm: DIN EN ISO 527
Yield stress	Test value: 32 MPa Test norm: DIN EN ISO 527
Elongation at rapture	Test value: > 50 % Test norm: DIN EN ISO 527
Notch impact strength	Test value: 8 kJ/m² Test norm: DIN EN ISO 179
Shore hardness	Test value: 72 Shore D Test norm: DIN EN ISO 868
Thermal properties	
Min. operating temperature	Test value: 0 °C
Max. operating temperature long term	Test value: 100 °C
Max. operating temperature short term	Test value: 150 °C
Crystalline melting point	Test value: 162 - 167 °C Test norm: ISO 11357-3
Coefficient of linear thermal expansion	Test value: 120 - 190 * $10^{-6}K^{-1}$ Test norm: DIN 53752
Heat deflection temperature	Test value: 90 °C Test norm: DIN EN ISO 306 Vicat B
Specific heat capacity	Test value: 1.7 kJ/kg·K Test norm: DIN 52612
Thermal conductivity	Test value: 0.20 W/m·K Test norm: DIN 52612-1

Electrical properties	
Dielectric loss factor	Test value: 0.00019 Test norm: DIN IEC 60250 Test parameter: 10^6 Hz
Dielectric constant	Test value: 2.4 Test norm: IEC 60250
Dielectric strength	Test value: 45 kV/mm Test norm: IEC 60243
Volume resistivity	Test value: > 10^{14} Ohm·cm Test norm: IEC 60093
Surface resistivity	Test value: > 10^{14} Ohm Test norm: IEC 60093
Comparative tracking index	Test value: 600 Test norm: IEC 60112
Other properties	
Flammability	Test value: HB Test norm: UL 94 Test parameter: Thickness 3 mm / 6 mm
Moisture absorption	Test value: > 0.1 % Test norm: DIN EN ISO 62

Approvals

- FDA 21 CFR 177.1520
- 1935/2004/EC
- 10/2011/EU
- GMP 2023/2006/EC

EC No.1935:2004

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.