APSOplast® PE-UHMW ED FG black

Engineering Plastic Technology
Technical Data Sheet

Application purpose and characteristics

Avoidance of electrostatic charge. For very wear and impact resistant slideways or coatings, e.g.for chutes, silos, feed ducts; support rail strips for timing belts and chain guides; for slide bearings and feed systems in machine and apparatus, for components in galvanizing and food processing. extremely impact and wear resistant, very low sliding friction coefficient, anti-adhesive surface, good chemical resistance, extremely low temperature resistant, electrostatically dissipative.

Product description	
Material name, long description	Polyethylen ultra high molecular weight
Material name, short description	PE-UHMW
Compound	PE-UHMW electrostatic dissipative
Material Code	PE-UHMW ED FG.001-00
Density	0.95 g/cm³
Color	black

Mechanical properties	
Modulus of elasticity and tension	Test value: 700 MPa Test norm: DIN EN ISO 527
Yield stress	Test value: 22 MPa Test norm: DIN EN ISO 527
Elongation at break	Test value: > 200 % Test norm: DIN EN ISO 527
Notch impact strength	Test value: no break kJ/m² Test norm: DIN EN ISO 179
Shore hardness	Test value: 63 Shore D Test norm: DIN EN ISO 868
Sliding wear	Test value: 100 Test parameter: Sand-slurry
Thermal properties	
Min. operating temperature	Test value: -150 °C
Max. operating temperature long term	Test value: +80 °C
Max. operating temperature short term	Test value: 130 °C
Crystalline melting point	Test value: 135 °C Test norm: ISO 11357-3
Coefficient of linear thermal expansion	Test value: 150 - 230 * $10^{-6}K^{-1}$ Test norm: DIN 53752
Heat deflection temperature	Test value: 79 °C Test norm: DIN EN ISO 306 Vicat B
Specific heat capacity	Test value: 1.90 kJ/kg·K Test norm: DIN EN ISO 52612-1
Thermal conductivity	Test value: 0.40 W/m·K Test norm: DIN 52612-1

Electrical properties	
Volume resistivity	Test value: < 10^6 Ohm·cm Test norm: IEC 60093 Test parameter: < 10^6
Surface resistivity	Test value: < 10^6 Ohm Test norm: IEC 60093

Approvals

- 10/2011/EU
- 1935/2004/EG
- GMP 2023/2006/EG

EC No.1935:2004

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