

GUR[®] ALGRA

Electrically and heat conductive, anthracite UHMW-PE powder grade
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Product information

Average molecular weight	4.2E6 g/mol	Margolies' equation
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Rheological properties

Viscosity number	2100 cm ³ /g	ISO 307, 1157, 1628
Intrinsic viscosity	1900	ISO 307, 1157, 1628

Typical mechanical properties

Tensile Modulus	1290 MPa	ISO 527-1/-2
Yield stress, 50mm/min	16 MPa	ISO 527-1/-2
Yield strain, 50mm/min	19 %	ISO 527-1/-2
Stress at 50% strain	16 MPa	ISO 527-1/-2
Stress at break, 50mm/min	18 MPa	ISO 527-1/-2
Nominal strain at break	160 %	ISO 527-1/-2
Tensile creep modulus, 1h	1060 MPa	ISO 899-1
Tensile creep modulus, 1000h	600 MPa	ISO 899-1
Charpy double notched impact strength, 23°C	40 kJ/m ²	ISO 21304-2
Ball indentation hardness, H 358/30	52 MPa	ISO 2039-1
Shore D hardness, 15s	62	ISO 48-4 / ISO 868

Tribological properties

Relative Wear (based on GUR 4120=100), sandslurry method	310	Internal
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Thermal properties

Temp. of deflection under load, 1.8 MPa	46 °C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	90 °C	ISO 75-1/-2
Vicat softening temperature, 50°C/h, 50N	101 °C	ISO 306
Coeff. of linear therm. expansion, parallel	150 E-6/K	ISO 11359-1/-2

Flammability

Burning Behav. at 1.5mm nom. thickn. Thickness tested	HB class 1.6 mm	UL 94 UL 94
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Electrical properties

Volume resistivity	1E7 Ohm.m	IEC 62631-3-1
Surface resistivity	1E9 Ohm	IEC 62631-3-2

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Other properties

Density

1250 kg/m³

ISO 1183
