

GUR® 4523

Melt processable UHMW-PE powder grade
 Melt processable UHMW-PE powder grade; screw extrusion grade

Product information

Average molecular weight	6.7E6 g/mol	Margolies' equation
Average particle size, D50	120 µm	laser scattering

Rheological properties

Melt mass-flow rate, Temperature	190 °C	
Melt mass-flow rate, Load	21.6 kg	
Viscosity number	3000 cm³/g	ISO 307, 1157, 1628
Intrinsic viscosity	2500	ISO 307, 1157, 1628

Typical mechanical properties

Tensile Modulus	740 MPa	ISO 527-1/-2
Yield stress, 50mm/min	20 MPa	ISO 527-1/-2
Yield strain, 50mm/min	13 %	ISO 527-1/-2
Stress at 50% strain	19 MPa	ISO 527-1/-2
Stress at break, 50mm/min	38 MPa	ISO 527-1/-2
Nominal strain at break	410 %	ISO 527-1/-2
Elongational stress, 150/10	0.24 MPa	ISO 21304-2
Charpy double notched impact strength, 23°C	160 kJ/m²	ISO 21304-2

Tribological properties

Relative Wear (based on GUR 4120=100), sandslurry method	110	Internal
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Thermal properties

Vicat softening temperature, 50°C/h, 50N	80 °C	ISO 306
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Other properties

Density	930 kg/m³	ISO 1183
Bulk density	490 kg/m³	ISO 60

Characteristics

Food contact	FDA 21 CFR
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