

GUR® 4050-3 - PE-UHMW

Description

Fine particle UHMW-PE powder grade

Physical properties	Value	Unit	Test Standard
Elongational Stress F, 150/10	0.5	MPa	ISO 11542-2
Average molecular weight	7.3E6	g/mol	Margolies' Equation
Density	930	kg/m³	ISO 1183
Melt flow rate, MFR	<0.1	g/10min	ISO 1133
MFR temperature	190	°C	ISO 1133
MFR load	21.6	kg	ISO 1133
Intrinsic viscosity	2700	cm³/g	ISO 1628-3
Viscosity number (PE and PP)	3200	cm³/g	ISO 1628-3
Average particle size, d50	60	µm	Laser scattering

Mechanical properties	Value	Unit	Test Standard
Charpy double 14°v-notch strength, 23°C	180	kJ/m²	ISO 11542-2
Wear by sandslurry method (based on GUR 4120=100)	85	-	Internal
Shore D hardness, 15s	60	-	ISO 868

Thermal properties	Value	Unit	Test Standard
DTUL at 1.8 MPa	38	°C	ISO 75-1, -2
Vicat softening temperature, 50°C/h 50N	80	°C	ISO 306

Electrical properties	Value	Unit	Test Standard
Volume resistivity	>1E12	Ohm*m	IEC 60093
Surface resistivity	>1E12	Ohm	IEC 60093

Characteristics

Special Characteristics	Regulatory
High viscosity	Drinking water approved
Product Categories	Delivery Form
Specialty, Unfilled	Powder

Processing

Compression molding