

GUR® X 205 - PE-UHMW

Experimental Grade. Please contact your Celanese representative for further information.

Description

Melt processable UHMW-PE powder grade

Physical properties	Value	Unit	Test Standard
Elongational Stress F, 150/10	0.19	MPa	ISO 11542-2
Average molecular weight	5.6E6	g/mol	Margolies' Equation
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	2300	cm ³ /g	ISO 1628-3
Viscosity number (PE and PP)	2600	cm ³ /g	ISO 1628-3
Average particle size, d50	110	µm	Laser scattering

Mechanical properties	Value	Unit	Test Standard
Charpy double 14°v-notch strength, 23°C	160	kJ/m ²	ISO 11542-2
Wear by sandslurry method (based on GUR 4120=100)	130	-	Internal
Tensile modulus	800	MPa	ISO 527-2/1B
Tensile stress at yield	21	MPa	ISO 527-2/1B
Tensile strain at yield	13	%	ISO 527-2/1B
Tensile stress at 50% strain	20	MPa	ISO 527-2/1B
Tensile stress at break	35	MPa	ISO 527-2/1B
Tensile nominal strain at break	390	%	ISO 527-2/1B
Shore D hardness, 15s	61	-	ISO 868

Thermal properties	Value	Unit	Test Standard
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

Product Categories	Delivery Form
Polymer blend, Unfilled	Powder
Processing	Regional Availability
Compression molding	Asia Pacific