Celanese
The chemistry inside innovation™

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**	cm³/g	ISO 1628-3
Viscosity number (PE and PP)	**2600**	cm³/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/m²	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