

GUR® 231 - PE-HMW

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

Physical properties	Value	Unit	Test Standard
Elongational Stress F, 150/10	0.02	MPa	ISO 11542-2
Average molecular weight	1000000	g/mol	Margolies' Equation
Density	940	kg/m ³	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	700	cm ³ /g	ISO 1628-3
Viscosity number (PE and PP)	750	cm ³ /g	ISO 1628-3
Average particle size, d50	115	µm	Laser scattering

Mechanical properties	Value	Unit	Test Standard
Charpy double 14°v-notch strength, 23°C	125	kJ/m ²	ISO 11542-2
Wear by sandslurry method (based on GUR 4120=100)	170	-	Internal
Tensile modulus	950	MPa	ISO 527-2/1B
Tensile stress at yield	24	MPa	ISO 527-2/1B
Tensile strain at yield	11	%	ISO 527-2/1B
Tensile stress at 50% strain	19	MPa	ISO 527-2/1B
Tensile stress at break	41	MPa	ISO 527-2/1B
Tensile nominal strain at break	750	%	ISO 527-2/1B
Shore D hardness, 15s	61	-	ISO 868

Thermal properties	Value	Unit	Test Standard
DTUL at 1.8 MPa	42	°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