

GUR® X 188 - PE-HMW

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

Description

HMW-PE powder grade

Physical properties	Value	Unit	Test Standard
Elongational Stress F, 150/10	<0.05	MPa	ISO 11542-2
Average molecular weight	700000	g/mol	Margolies' Equation
Density	940	kg/m ³	ISO 1183
Melt flow rate, MFR	0.5	g/10min	ISO 1133
MFR temperature	190	°C	ISO 1133
MFR load	21.6	kg	ISO 1133
Intrinsic viscosity	600	cm ³ /g	ISO 1628-3
Viscosity number (PE and PP)	600	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	90	kJ/m ²	ISO 11542-2
Wear by sandslurry method (based on GUR 4120=100)	200	-	Internal
Tensile modulus	950	MPa	ISO 527-2/1B
Tensile stress at yield	24	MPa	ISO 527-2/1B
Tensile strain at yield	8	%	ISO 527-2/1B
Tensile stress at 50% strain	18	MPa	ISO 527-2/1B
Tensile stress at break	38	MPa	ISO 527-2/1B
Tensile nominal strain at break	800	%	ISO 527-2/1B

Thermal properties	Value	Unit	Test Standard
Vicat softening temperature, 50°C/h 50N	80	°C	ISO 306