Celanese
The chemistry inside innovation™

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/m³	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**	cm³/g	ISO 1628-3
Viscosity number (PE and PP)	**600**	cm³/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/m²	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