

GUR® 4118 - PE-HMW

Physical properties	Value	Unit	Test Standard
Elongational Stress F, 150/10	1.45	psi	ISO 21304-2
Average molecular weight	600000	g/mol	Margolies' Equation
Density	59.3	lb/ft ³	ISO 1183
Melt flow rate, MFR	1.1	g/10min	ISO 1133
MFR temperature	374	°F	ISO 1133
MFR load	47.6	lb	ISO 1133
Intrinsic viscosity	13800	in ³ /lb	ISO 1628-3
Viscosity number (PE and PP)	13800	in ³ /lb	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	21.4	ft-lb/in ²	ISO 21304-2
Wear by sandslurry method (based on GUR 4120=100)	250	-	Internal
Tensile modulus	152000	psi	ISO 527-2/1B
Tensile stress at yield	3630	psi	ISO 527-2/1B
Tensile strain at yield	8	%	ISO 527-2/1B
Tensile stress at 50% strain	2610	psi	ISO 527-2/1B
Tensile stress at break	5370	psi	ISO 527-2/1B
Tensile nominal strain at break	870	%	ISO 527-2/1B
Shore D hardness-TPE, 15s	63	-	ISO 868

Thermal properties	Value	Unit	Test Standard
DTUL at 1.8 MPa	109	°F	ISO 75-1, -2
Vicat softening temperature, 50°C/h 50N	176	°F	ISO 306

Electrical properties	Value	Unit	Test Standard
Volume resistivity, 23°C	>1E12	Ohm*m	IEC 62631-3-1
Surface resistivity, 23°C	>1E12	Ohm	IEC 62631-3-2

Characteristics

Special Characteristics	Hydrolysis resistant, UV resistant
Processing	Injection molding

