

GUR® 4112 - PE-UHMW

Physical properties	Value	Unit	Test Standard
Elongational Stress F, 150/10	5.8	psi	ISO 21304-2
Average molecular weight	1.7E6	g/mol	Margolies' Equation
Density	58.7	lb/ft ³	ISO 1183
MFR temperature	374	°F	ISO 1133
MFR load	47.6	lb	ISO 1133
Intrinsic viscosity	27700	in ³ /lb	ISO 1628-3
Viscosity number (PE and PP)	30400	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	90.4	ft-lb/in ²	ISO 21304-2
Wear by sandslurry method (based on GUR 4120=100)	140	-	Internal
Tensile modulus	131000	psi	ISO 527-2/1B
Tensile stress at yield	3190	psi	ISO 527-2/1B
Tensile strain at yield	9	%	ISO 527-2/1B
Tensile stress at 50% strain	2760	psi	ISO 527-2/1B
Tensile stress at break	6090	psi	ISO 527-2/1B
Tensile nominal strain at break	550	%	ISO 527-2/1B
Shore D hardness-TPE, 15s	60	-	ISO 868

Thermal properties	Value	Unit	Test Standard
DTUL at 1.8 MPa	106	°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

Processing Injection molding

