Celanese
The chemistry inside innovation™

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/ft³	ISO 1183
MFR temperature	**374**	°F	ISO 1133
MFR load	**47.6**	lb	ISO 1133
Intrinsic viscosity	**27700**	in³/lb	ISO 1628-3
Viscosity number (PE and PP)	**30400**	in³/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/in²	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