Celanese
The chemistry inside innovation™

GUR® X 242 - PE-UHMW

Physical properties	Value	Unit	Test Standard
Elongational Stress F, 150/10	**10.2**	psi	ISO 21304-2
Average molecular weight	**2E6**	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	**31800**	in^3/lb	ISO 1628-3
Viscosity number (PE and PP)	**33200**	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	**102**	ft-lb/in^2	ISO 21304-2
Wear by sandslurry method (based on GUR 4120=100)	**140**	-	Internal
Tensile stress at yield	**3340**	psi	ISO 527-2/1B
Tensile strain at yield	**13**	%	ISO 527-2/1B
Tensile stress at 50% strain	**2900**	psi	ISO 527-2/1B
Tensile stress at break	**5220**	psi	ISO 527-2/1B
Tensile nominal strain at break	**400**	%	ISO 527-2/1B

Thermal properties	Value	Unit	Test Standard
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

Processing Injection molding