

GUR® 2105-1 - PE-HMW

Description

Very fine particle size, low bulk density HMW-PE powder grade
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Physical properties	Value	Unit	Test Standard
Elongational Stress F, 150/10	1.45	psi	ISO 21304-2
Average molecular weight	400000	g/mol	Margolies' Equation
Density	59.3	lb/ft³	ISO 1183
Melt flow rate, MFR	3.6	g/10min	ISO 1133
MFR temperature	374	°F	ISO 1133
MFR load	47.6	lb	ISO 1133
Intrinsic viscosity	11100	in³/lb	ISO 1628-3
Viscosity number (PE and PP)	11100	in³/lb	ISO 1628-3
Average particle size, d50	20	µm	Laser scattering

Mechanical properties	Value	Unit	Test Standard
Charpy double 14°v-notch strength, 23°C	14.3	ft-lb/in²	ISO 21304-2
Wear by sandslurry method (based on GUR 4120=100)	320	-	Internal
Tensile modulus	174000	psi	ISO 527-2/1B
Tensile stress at yield	3920	psi	ISO 527-2/1B
Tensile strain at yield	10	%	ISO 527-2/1B
Tensile stress at 50% strain	2610	psi	ISO 527-2/1B
Tensile stress at break	4930	psi	ISO 527-2/1B
Tensile nominal strain at break	770	%	ISO 527-2/1B
Shore D hardness-TPE, 15s	63	-	ISO 868

Thermal properties	Value	Unit	Test Standard
DTUL at 1.8 MPa	111	°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
Product Categories	Impact modified, Specialty, Unfilled
Processing	Injection molding
Delivery Form	Powder

