Celanese
The chemistry inside innovation™

GUR® 2122 - PE-UHMW

Description

UHMW-PE powder for high filler compounds or porous applications - special morphology, low bulk density

Physical properties	Value	Unit	Test Standard
Elongational Stress F, 150/10	**0.21**	MPa	ISO 11542-2
Average molecular weight	**4.2E6**	g/mol	Margolies' Equation
Density	**930**	kg/m³	ISO 1183
Melt flow rate, MFR	**<0.1**	g/10min	ISO 1133
MFR temperature	**190**	°C	ISO 1133
MFR load	**21.6**	kg	ISO 1133
Intrinsic viscosity	**1900**	cm³/g	ISO 1628-3
Viscosity number (PE and PP)	**2100**	cm³/g	ISO 1628-3
Average particle size, d50	**130**	µm	Laser scattering

Mechanical properties	Value	Unit	Test Standard
Charpy double 14°v-notch strength, 23°C	**170**	kJ/m²	ISO 11542-2
Wear by sandslurry method (based on GUR 4120=100)	**100**	-	Internal
Tensile modulus	**770**	MPa	ISO 527-2/1B
Tensile stress at yield	**21**	MPa	ISO 527-2/1B
Tensile strain at yield	**13**	%	ISO 527-2/1B
Tensile stress at 50% strain	**20**	MPa	ISO 527-2/1B
Tensile stress at break	**39**	MPa	ISO 527-2/1B
Tensile nominal strain at break	**400**	%	ISO 527-2/1B
Shore D hardness, 15s	**60**	-	ISO 868

Thermal properties	Value	Unit	Test Standard
DTUL at 1.8 MPa	**41**	°C	ISO 75-1, -2
Vicat softening temperature, 50°C/h 50N	**80**	°C	ISO 306

Electrical properties	Value	Unit	Test Standard
Volume resistivity	**>1E12**	Ohm*m	IEC 60093
Surface resistivity	**>1E12**	Ohm	IEC 60093

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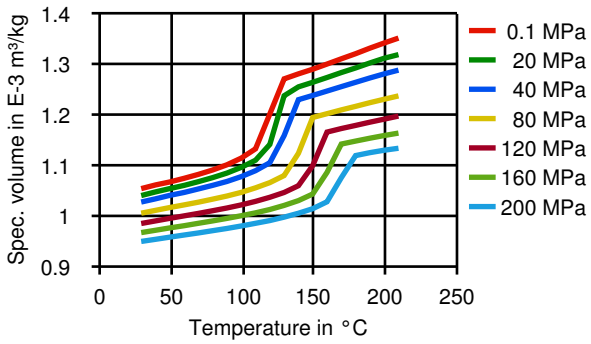
Diagrams

Moldflow Specific volume-temperature (pvT)



Other text information

Other extrusion

All ram extruders can be used to produce semi-forms such as rod, tube, board, sheet or profiles.

Temperature Profile: 180-230 °C

Characteristics

Special Characteristics	Regulatory
High viscosity	Drinking water approved

Product Categories	Delivery Form
Specialty, Unfilled	Powder