

GUR® 4222-5

GUR®

Heat stabilized coarse particle UHMW-PE powder grade for porous application

Product information

Resin Identification	(PE-UHMW)	ISO 1043
Part Marking Code	>(PE-UHMW)<	ISO 11469
Average molecular weight	4.4E6 g/mol	Margolies' equation
Average particle size, d50	170 µm	laser scattering

Rheological properties

Viscosity number	2200 cm³/g	ISO 307, 1628
Intrinsic viscosity	1900	ISO 307, 1628

Typical mechanical properties

Tensile modulus	800 MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	21 MPa	ISO 527-1/-2
Tensile strain at yield, 50mm/min	15 %	ISO 527-1/-2
Tensile stress at 50% strain	21 MPa	ISO 527-1/-2
Tensile stress at break, 50mm/min	41 MPa	ISO 527-1/-2
Nominal strain at break	380 %	ISO 527-1/-2
Elongational stress F, 150/10	0.24 MPa	ISO 21304-2
Charpy double notched impact strength, 23°C	120 kJ/m²	ISO 21304-2
Poisson's ratio	0.46 ^[C]	

[C]: Calculated

Tribological properties

Wear by sandslurry method (based on GUR 4120=100)	110
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Physical/Other properties

Density	930 kg/m³	ISO 1183
Bulk density	410 kg/m³	ISO 60

Characteristics

Processing	Compression moulding, Porous Sintering
Delivery form	Powder
Special characteristics	High impact or impact modified, Heat stabilised or stable to heat, Hydrolysis resistant, Low wear / Low friction, Chemical resistant

Printed: 2025-05-30

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Revised: 2024-07-24 Source: Celanese Materials Database

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