

# GUR® 4523

GUR®

Melt processable UHMW-PE powder grade; screw extrusion grade

## Product information

Resin Identification	(PE-UHMW)	ISO 1043
Part Marking Code	>(PE-UHMW)<	ISO 11469
Average molecular weight	6.7E6 g/mol	Margolies' equation
Average particle size, d50	120 µm	laser scattering

## Rheological properties

Viscosity number	3000 cm³/g	ISO 307, 1628
Intrinsic viscosity	2500	ISO 307, 1628

## Typical mechanical properties

Tensile modulus	740 MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	20 MPa	ISO 527-1/-2
Tensile strain at yield, 50mm/min	13 %	ISO 527-1/-2
Tensile stress at 50% strain	19 MPa	ISO 527-1/-2
Tensile stress at break, 50mm/min	38 MPa	ISO 527-1/-2
Nominal strain at break	410 %	ISO 527-1/-2
Elongational stress F, 150/10	0.24 MPa	ISO 21304-2
Charpy double notched impact strength, 23°C	160 kJ/m²	ISO 21304-2
Poisson's ratio	0.46 <sup>[C]</sup>	

[C]: Calculated

## Tribological properties

Wear by sandslurry method (based on GUR 4120=100)	110
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## Thermal properties

Vicat softening temperature, 50°C/h 50N	80 °C	ISO 306
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## Physical/Other properties

Density	930 kg/m³	ISO 1183
Bulk density	490 kg/m³	ISO 60

## Characteristics

Processing	Injection Moulding, Extrusion
Delivery form	Powder
Special characteristics	Hydrolysis resistant, Low wear / Low friction, Chemical resistant

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Printed: 2025-05-30

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Revised: 2024-08-13 Source: Celanese Materials Database

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