

# GUR® 5113

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Melt processable UHMW-PE pellet grade

Some of the listed data have been determined from the virgin powder.

## Product information

Resin Identification	(PE-UHMW)	ISO 1043
Part Marking Code	>(PE-UHMW)<	ISO 11469
Average molecular weight	3.7E6 g/mol	Margolies' equation

## Rheological properties

Viscosity number	1900 cm <sup>3</sup> /g	ISO 307, 1628
Intrinsic viscosity	1700	ISO 307, 1628

## Typical mechanical properties

Tensile modulus	800 MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	22 MPa	ISO 527-1/-2
Tensile strain at yield, 50mm/min	12 %	ISO 527-1/-2
Tensile stress at 50% strain	19 MPa	ISO 527-1/-2
Tensile stress at break, 50mm/min	37 MPa	ISO 527-1/-2
Nominal strain at break	430 %	ISO 527-1/-2
Elongational stress F, 150/10	0.12 MPa	ISO 21304-2
Charpy double notched impact strength, 23°C	190 kJ/m <sup>2</sup>	ISO 21304-2
Poisson's ratio	0.46 <sup>[C]</sup>	
Shore D hardness, 15s	62	ISO 48-4 / ISO 868

[C]: Calculated

## Tribological properties

Wear by sandslurry method (based on GUR 4120=100)	130
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## Thermal properties

Vicat softening temperature, 50°C/h 50N	80 °C	ISO 306
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## Flammability

Burning Behav. at 1.5mm nom. thickn.	HB class	IEC 60695-11-10
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## Electrical properties

Volume resistivity	1E12 Ohm.m	IEC 62631-3-1
Surface resistivity	1E12 Ohm	IEC 62631-3-2

## Physical/Other properties

Density	930 kg/m <sup>3</sup>	ISO 1183
Bulk density	500 kg/m <sup>3</sup>	ISO 60

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### Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Special characteristics	High impact or impact modified, Hydrolysis resistant, Low wear / Low friction, Chemical resistant

### Additional information

Processing Notes

#### Pre-Drying

Not needed

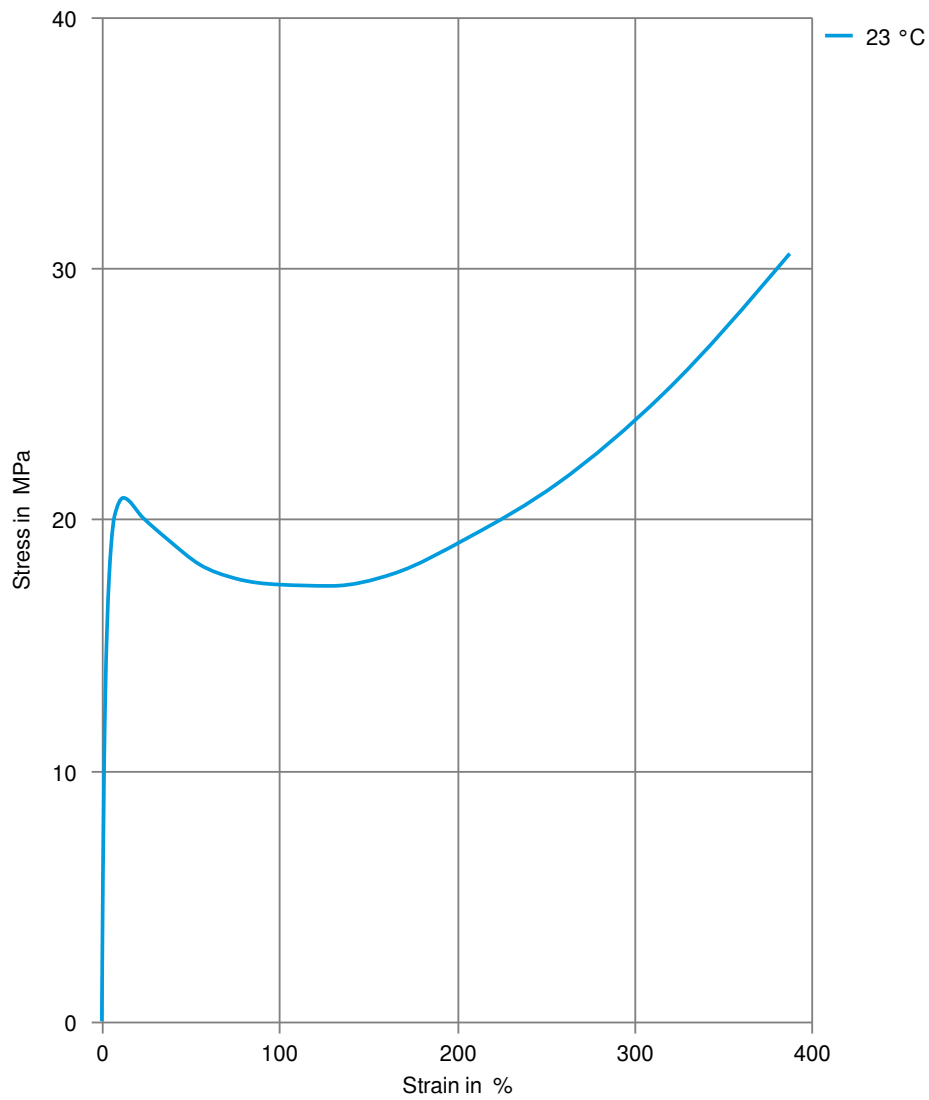
#### Storage

None

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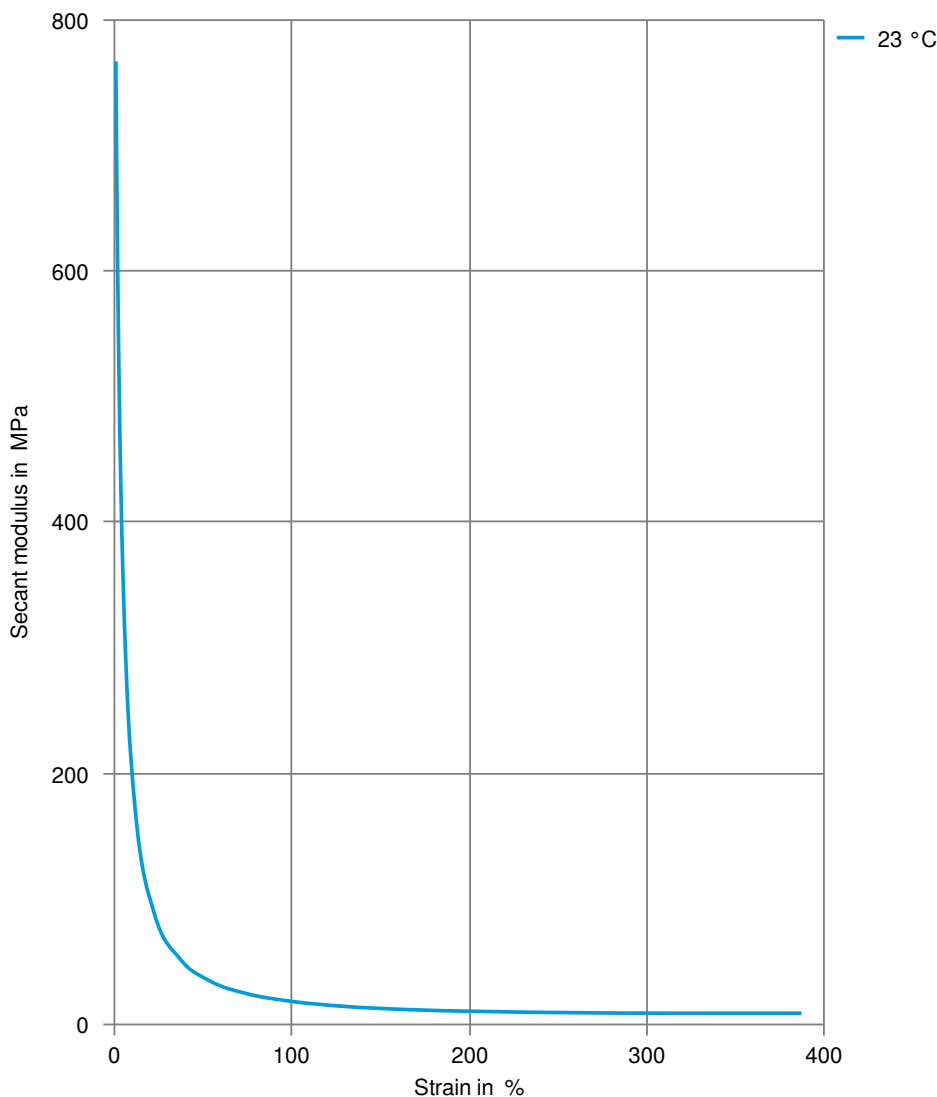
## Stress-strain



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## Secant modulus-strain



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