

## PE-UHMW (POLYETHYLENE) PE 1000 RECYCLED ANTISTATIC

### MATERIAL DATA SHEET

- Antistatic
- Good wear resistance
- Good sliding properties

PROPERTIES	Test methods	Units	VALUES
Color	-	-	Black
Water absorption at saturation in water of 23°C	ISO 62	%	<0.01
Flammability	UL 94		HB
Molecular weight	-	10 <sup>6</sup> g/mol	≥4
<b>Thermal Properties</b>			
Melting temperature (DSC, 10°C/min)	ISO 11357-1/-3	°C	135
Thermal conductivity at 23°C	-	W/(K.m)	0.40
Average coefficient of linear thermal expansion between 23 and 100°C	-	m/(m.K)	150-230 x 10 <sup>-6</sup>
Thermal capacity	ISO 52612	kJ/(kg*K)	1.90
Max. allowable service temperature in air:			
- for short periods	-	°C	130
- continuously: for min. 20,000 h	-	°C	80
Vicat softening temperature	ISO 306 Vicat B	°C	79
Min. service temperature	-	°C	-100
<b>Mechanical Properties at 23°C</b>			
Tension test			
- tensile stress at yield	ISO 527	MPa	>20
- tensile modulus of elasticity	ISO 527	MPa	>700
Elongation at break	ISO 527	%	>200
Impact strength - notched	ISO 11542	kJ/m <sup>2</sup>	>50
Shore hardness D (15 s)	ISO 868	-	>60
<b>Electrical Properties at 23 °C</b>			
Dielectric constant	IEC 60250		2.3
Dielectric dissipation factor	IEC 60250		0.0004
Volume resistivity	IEC 62631-3-1	Ohm*cm	< 10 <sup>9</sup>

Note: 1 g/cm<sup>3</sup> = 1,000 kg/m<sup>3</sup> ; 1 MPa = 1 N/mm<sup>2</sup> ; 1 kV/mm = 1 MV/m. NA: not applicable

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