

### Technical Data Sheet

# Polystone<sup>®</sup> M black pressed

PE-UHMW / PE 1000

#### Typical characteristics

- Good mechanical properties
- Low coefficient of friction
- Good wear properties
- Good impact strength

#### Typical industries

- Tecnologia di trasporto e automazione
- Ingegneria meccanica e impiantistica

#### Sustainability

- LCA available (ISO 14040/44)

	Test method	Unit	Guideline value
<b>General properties</b>			
Density	DIN EN ISO 1183-1	g / cm <sup>3</sup>	>0,93
Water absorption	DIN EN ISO 62	%	<0,01
Flammability (Thickness 3 mm / 6 mm)	UL 94		HB
Molecular weight	-	10 <sup>6</sup> g/mol	~ 9
<b>Mechanical properties</b>			
Elongation at break	DIN EN ISO 527	%	>50
Tensile modulus of elasticity	DIN EN ISO 527	MPa	>650
Notched impact strength	DIN EN ISO 11542	kJ / m <sup>2</sup>	>100
Shore hardness	DIN EN ISO 868	scale D	>63
<b>Thermal properties</b>			
Melting temperature	ISO 11357-3	°C	130 ... 135
Thermal conductivity	DIN 52612-1	W / (m * K)	0,40
Thermal capacity	DIN 52612	kJ / (kg * K)	1,90
Coefficient of linear thermal expansion	DIN 53752	10 <sup>-6</sup> / K	150 ... 230
Service temperature, long term	Average	°C	-250 ... 80
Service temperature, short term (max.)	Average	°C	130
Vicat softening temperature	DIN EN ISO 306, Vicat B	°C	80
<b>Electrical properties</b>			
Dielectric constant	IEC 60250		2,3
Dielectric dissipation factor (10 <sup>6</sup> Hz)	IEC 60250		0,0001
Volume resistivity	DIN EN 62631-3-1	Ω * cm	>10 <sup>14</sup>

[ri-inquiry@roechling.com](mailto:ri-inquiry@roechling.com) • [www.roechling.com/industrial/materials](http://www.roechling.com/industrial/materials)



	Test method	Unit	Guideline value
Surface resistivity	DIN EN 62631-3-2	$\Omega$	$>10^{14}$
Comparative tracking index	IEC 60112		600
Dielectric strength	IEC 60243	kV / mm	$>40$

The data stated above are average values ascertained by statistical tests on a regular basis. They are in accordance with DIN EN 15860. The data above are provided purely for information and shall not be regarded as binding unless expressly agreed in a contract of sale.



[ri-inquiry@roechling.com](mailto:ri-inquiry@roechling.com) • [www.roechling.com/industrial/materials](http://www.roechling.com/industrial/materials)

Print: 25/06/2026 • Release: 27/10/2023 • Version: 2.0  
PIM-ID: 591004 • PIM-Code: 1162-35-17.12.126.162-11.5-3-5  
Company-IDs: 20000-1

Page 2 / 2 (Dates in DD/MM/YYYY)

