

### Technical Data Sheet

## Matrox<sup>®</sup> SI 12 black

PE-UHMW / PE 1000

#### Typical characteristics

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

#### Typical industries

- Bulk Material Handling

	Test method	Unit	Guideline value
<b>General properties</b>			
Density	DIN EN ISO 1183-1	g / cm <sup>3</sup>	>0,94
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	≥4
<b>Mechanical properties</b>			
Yield stress	DIN EN ISO 527	MPa	>19
Elongation at break	DIN EN ISO 527	%	>50
Tensile modulus of elasticity	DIN EN ISO 527	MPa	>700
Notched impact strength	DIN EN ISO 11542-2	kJ / m <sup>2</sup>	>70
Shore hardness	DIN EN ISO 868	scale D	>63
Wear resistance	Sand-slurry		125
Sand Slurry	1018 Steel=10		~ 120
<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	-100 ... 80
Service temperature, short term (max.)	Average	°C	130
Vicat softening temperature	DIN EN ISO 306, Vicat B	°C	79
<b>Electrical properties</b>			
Dielectric constant	IEC 60250		2,3



	Test method	Unit	Guideline value
Dielectric dissipation factor (10 <sup>6</sup> Hz)	IEC 60250		0,0004
Comparative tracking index	IEC 60112		600
Dielectric strength	IEC 60243	kV / mm	>40

