

Technical Data Sheet



Polystone[®] M AST PIR black

PE-UHMW / PE 1000

Typical characteristics

- Antistatic
- Good wear resistance
- Good impact strength

Typical industries

- Conveyor Technology & Automation
- Mechanical Engineering Industry

Sustainability

- Post-Industrial-Recycling material
- Recycling content 90%
- LCA available (ISO 14040/44)

	Test method	Unit	Guideline value
General properties			
Density	DIN EN ISO 1183-1	g / cm ³	>0,94
Water absorption	DIN EN ISO 62	%	<0,01
Flammability (Thickness 3 mm / 6 mm)	UL 94		HB
Molecular weight	-	10 ⁶ g/mol	≥ 4
Mechanical properties			
Yield stress	DIN EN ISO 527	MPa	>20
Tensile modulus of elasticity	DIN EN ISO 527	MPa	>700
Notched impact strength	DIN EN ISO 11542	kJ / m ²	>50
Shore hardness	DIN EN ISO 868	scale D	>60
Thermal properties			
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 ⁻⁶ / 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
Electrical properties			
Dielectric constant	IEC 60250		2,3
Dielectric dissipation factor (10 ⁶ Hz)	IEC 60250		0,0004
Volume resistivity	DIN EN 62631-3-1	Ω * cm	10 ⁹ ... 10 ¹¹

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	Test method	Unit	Guideline value
Surface resistivity	DIN EN 62631-3-2	Ω	$10^9 \dots 10^{11}$
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.



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