Röchling

Industrial

Technical Data Sheet

Polystone® M AST black extruded

PE-UHMW / PE 1000

Typical characteristics

- Antistatic
- Good wear resistance
- Good impact strength

Typical industries

- Mechanical Engineering Industry
- Building industry
- Bulk Material Handling
- Electronics

	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	~ 9
Mechanical properties			
Yield stress	DIN EN ISO 527	MPa	>20
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	kJ / m^2	>50
Shore hardness	DIN EN ISO 868	scale D	>63
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	-150 ... 80
Service temperature, short term (max.)	Average	°C	130
Vicat softening temperature	DIN EN ISO 306, Vicat B	°C	79
Electrical properties			
Volume resistivity	DIN EN 62631-3-1	Ω * cm	≤10^9

	Test method	Unit	Guideline value
Surface resistivity	DIN EN 62631-3-2	Ω	$\leq 10^9$