

PRELIMINARY DATASHEET

PARTBOX BLACK – 3D PRINTING FILAMENT

High-temperature polyamide with mineral filler, black



Physical properties		Test method	Specimen	Units	Typical value
Specific gravity		ISO 1183-3		g/cm ³	1,25
Water absorption	23°C / 24h	ISO 62	MPTS ISO 3167 A	%	<0,3
Melt flow rates (MFR)	250°C / 2,16kg	ISO 1133	pellet	g/10 min	5,5
Melt volume rate (MVR)	250°C / 2,16kg	ISO 1133	pellet	cm ³ /10 min	5
Linear mould shrinkage		DIN 16742	MPTS ISO 3167 A	%	0,3-0,5

Mechanical properties at 23°C / 50% rh

Tensile strength	dry, @50 mm/min	ISO 527	MPTS ISO 3167 A	MPa	78
Elongation at maximum force	dry, @50 mm/min	ISO 527	MPTS ISO 3167 A	%	4,4
Modulus of elasticity	dry, @1 mm/min	ISO 527	MPTS ISO 3167 A	GPa	3,4
Charpy impact strength	dry	ISO 179 1eU	80x10x4mm	kJ/m ²	90

Thermal properties

Heat distortion temperature	HDT A	ISO 75	molded sample	°C	90
Continuous service temperature	20.000 h	IEC 60216	MPTS ISO 3167 A	°C	120
Service temperature	during lifetime max. 200h		MPTS ISO 3167 A	°C	160

Electrical properties

Insulation resistance strip electrode	R25	DIN IEC 60167	MPTS ISO 3167 A	Ω	>10 ¹²
Surface resistance	ROB	DIN IEC 60093	Ronde 60x4mm	Ω	>10 ¹²

Main features

Low influence from moisture and temperature to measures and electrical properties, compared with PA66

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