

PRELIMINARY DATASHEET

PARTBPOX BLUE – 3D PRINTING FILAMENT

High-temperature polyamide with mineral filler, blue



| 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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