

Material data sheet

voxeljet 3D printers

Plastic

PMMA particle material (55 µm)
Polypor B
≥ 2.0 MPa
1 %
700 °C
< 0.01 weight %
investment casting; design models
sharp edges; for highest accuracy and true-to- detail; reusable particle material

- Can be used for prototypes, illustrative models or lost models
- Precise layering & high accuracy
- Components of high complexity
- Economical production in batch sizes of one as well as in series production
- Perfect for investment casting because of the base material PMMA

Technical data plastic parts

Layer thickness	100 - 150 μm
Resolution x, y	up to 600 dpi
Accuracy	± 0.4 % (min. ± 0.3 mm)

Suitable finishing treatment

	Wax	Epoxy
Tensile strength	see base material	up to 25 MPa
Softening temp.	73 °C	80 °C
Burn out temp.	see base material	-
Characteristics	smooth liquid, resistant surface	solid material, dyeable

Sand

Base material	silica sand	silica sands of various grain sizes
Binder-type	Phenolic resin	Cold hardening furan resin
Bending strength	250 - 500 N/cm ²	≥ 220 N/cm² (depending on the sand or binder)
Loss on ignition	adjustable (1.8 - 2.4 weigh %)	nt 1.5 weight %
Especially suited for	Sand casting of almost all alloys, especially steel or iron alloys.	Sand casting of almost all alloys.
Advantages	low gas shock, sand almost 100% recyclable, easy unpacking and highest edge sharpness.	

Technical data sand parts

Layer thickness	200 - 300 μm; standard 300 μm
Resolution x, y	up to 300 dpi
Accuracy	\pm 0.1 % (min. \pm 1.5 layer thickness)

- Any hybrid design and combination with conventional molds
- > Complex cores manufactured and reproduced in one piece
- > High flexibility with regard to quantity and mold design
- Close-to-production mold and casting properties
- > Economical from prototype to small series production

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