voxeljet SERVICES

MATERIAL DATA SHEET
PLASTIC PARTS

Material data sheet for plastic parts

PLASTIC		
Base material	PMMA particulate material (55 µm)	PMMA particulate material (85 µm)
Binder-type	Polypor B (PPB)	Polypor C (PPC)
Tensile strength	4.3 MPa	3.7 MPa
Yield point	1 %	1 %
Burn-out temperature	700 °C	600 °C
Residual ash content	< 0.3 % weight	< 0.02 % weight
Especially suitable for	investment casting; design models	investment casting; architectural models
Advantages	sharp edges; for highest accuracy and true-to-detail; reusable particle material	burns out well with practically no residual ash content; reusable particle material

TECHNICAL DATA PLASTIC PARTS	
Layer thickness	Standard 150 µm
Resolution x, y	up to 600 dpi
Accuracy	± 0.4 % (min. ± layer thickness)

SUITABLE FINISHING TREATMENT	Wax	Epoxy
Tensile strength	see base material	up to 25 MPa
Softening temperature	73 °C	80 °C
Burn-out temperature	see base material	–
Characteristics	smooth liquid-resistent surface	solid material, dyeable

ADVANTAGES OF PLASTIC MODELS

- Model sizes up to 1,000 x 600 x 500 mm (LxWxH)
- up to 600 dpi print resolution
- Same handling as for conventional wax parts after wax infiltration
- No shell cracking due to negative coefficient of thermal expansion.
- Suitable for autoclaves, even for thin-walled shells
- Low residual ash content
- No heat distortion as hardening process is purely a chemical process
- Coloured display models through epoxy infiltration

Validity: 09/2016. We reserve the right to make technical changes. voxeljet is ISO 9001- certified.

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