

Material data sheet for Inorganic-Direct-Binding (IOB)

MATERIAL DATA

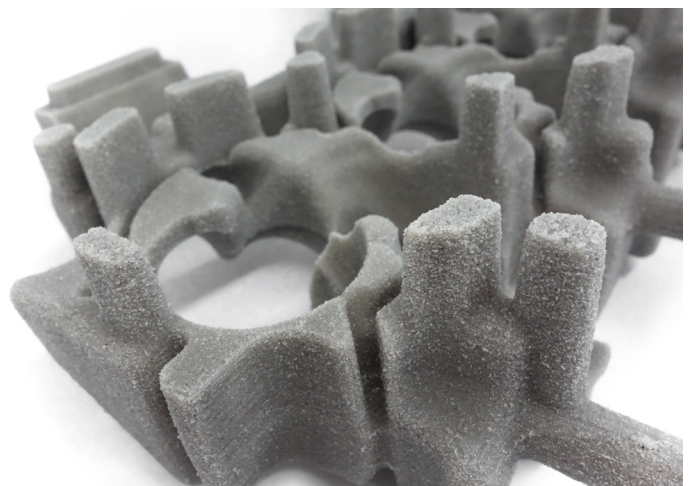
Material	Silica sand
Designation	GS 15
Medium grain size (μm)	150 μm
Applications	Cores for casting

TECHNICAL DATA

Build space up to	1,000 x 600 x 200 mm
Binder type	waterglass-based binder
Layer height	280 μm (standard)
Accuracy	$\pm 0.4 \%$ (min. 280 μm layer height)
Loss on ignition	residual moisture <0.3 %
Resolution x, y	300 dpi

ADVANTAGES OF INORGANICS

- Emission-free casting for improved environmental and working conditions
- Large format 3D printing with dimensions of up to 1,000 x 600 x 500 mm (LxWxH)
- Tool-free production from prototypes to medium batches
- Ideal compatibility with aluminum alloys
- Combinability with conventional sand and permanent molds
- Complex geometries can also be produced without problems or tools



VX1000-S IOB

Environmental friendliness and productivity are the focus of 3D printing with inorganic binders. Due to the waterglass-based binder, only water vapour is emitted during the casting process. Costly filter systems become obsolete and both environmental and wor-

king conditions are significantly improved. Unprinted sand can be recycled and reused. In addition, a powerful print head technology enables a significantly increased building speed. Even complex geometries can thus be 3D printed economically and sustainably.



Technical Data

DIMENSIONS

Dimensions LxWxH	2,800 x 2,400 x 2,300 mm
Installation space LxWxH	11,000 x 8,000 x 2,800 mm

PROCESS

Build space LxWxH	1,000 x 600 x 200 mm
Print resolution x, y	300 dpi

System Features

- Environmentally friendly binder system for low-emission light metal casting
- High-performance print head technology reduces layer times and costs per part
- Printhead resolution of up to 300 dpi
- Box volume of 300 litres
- Industrial 3D printing system for continuous operation
- Comprehensively tested and qualified process parameters for inorganic molding sand systems
- Automation of post-production processes
- Allround solution for environmentally friendly casting production



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