

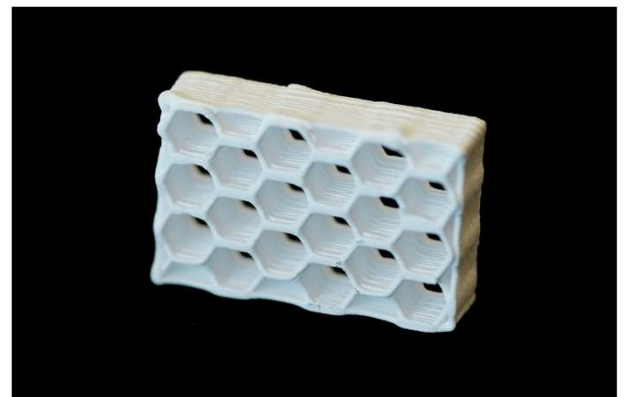
FastCast Ceramics – 3D printing of ceramic pastes

Ceramic 3D printing enables the production of filigree and complex components for the automotive industry, plant engineering or medical technology. This process technology can also be used in the foundry sector for the production of ceramic shells or cores. For this purpose, FastCast Ceramics has developed a high-quality water-based ceramic slurry for printing sophisticated ceramic components.

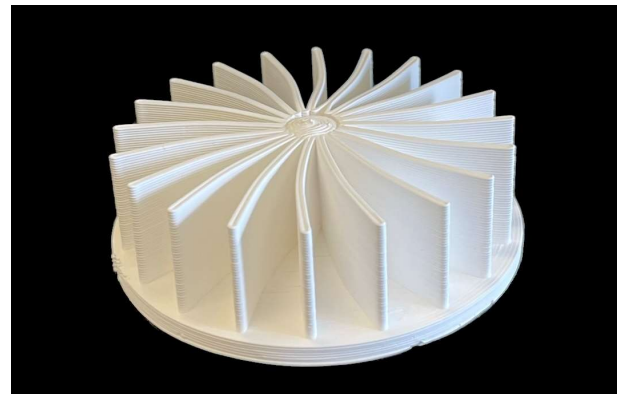
The process

Ceramic 3D printing is an additive manufacturing method in which a component is created by applying ceramic layers. First, a CAD model of the component to be printed is modeled and transferred to a 3D printer. There, the component is mathematically divided into several layers, which enables the computer-controlled layer-by-layer construction of the component. Different software-adjustable printing parameters are taken into account, including the speed of the nozzle, the layer height to be applied and the printing temperature.

The green body produced in this way is then dried and sintered to obtain the properties characteristic of ceramics, such as high mechanical hardness, corrosion and wear resistance or dimensional stability.



Al₂O₃-Ceramic-3D-print, WxHxD: 30x17x5 mm



Al₂O₃-ceramic-3D-print, diameter 80 mm, height 24 mm

Our offer

The production and optimization of ceramic pastes is our core area. Together with you, we define the properties and shape of the components and produce initial prototypes for you. After completion of this phase, we deliver the paste tailored to your needs, ready for use.

Advantages of the 3D printing process

- ✓ High degree of design freedom
- ✓ Low energy consumption
- ✓ Reduction of waste
- ✓ Reduction of production time

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