

3DCERAM Sinto Opens the Industrial Stage, from Lab to Mass Production

Technical Ceramics is ready to industrialise 3D-printing thanks to the new development of dedicated equipment.



Fig. 1
The range of printers in the portfolio of 3DCERAM Sinto



Fig. 2
SAM option, to be installed on the C900 for prototyping with a small amount of material (50 ml)

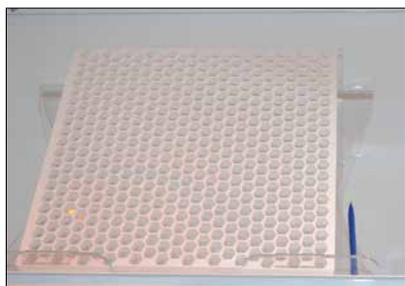


Fig. 3
C3600 ULTIMATE allows mass production or to print big parts, like a satellite mirror or honeycomb

Keywords
stereolithography,
industrial ceramic 3D-printing

Introduction

600 mm × 600 mm × 300 mm are the dimensions of the building platform of the C3600 ULTIMATE, the new 3D-printer from the French company 3DCERAM Sinto, based in Limoges. The strategy is to cover all industrial needs in 3D-printing technical ceramics, which is reached with the printers range, from C100 EASY to C3600 ULTIMATE to C900 FLEX.

Easy scale up from C100 EASY for prototyping to C3600 ULTIMATE for mass production

The C100 EASY is the dedicated to research and prototyping. It allows to launch a run in 20–30 min with only 100 ml of formulation! C100 EASY features a 100 mm × 100 mm

× 150 mm building platform and cartridges with a capacity of up to 1 l which can be refilled during printing time thanks to SAM (Small Amount of Material) equipment which uses a very small quantity of formulation. The open parameters allow to develop formulations to answer universities and research centres. User-friendly, this printer is also a tool to connect development and mass production which could be sum up by “prototype on C100 EASY to manufacture on C3600 ULTIMATE”. The four lasers which equipped the C3600 ULTIMATE make the challenge possible and ensure a printing time compatible with industrial needs, as it reduces it meaningfully.

3DCERAM printers use stereolithography printing technology for the quality of finishing and accuracy of printed parts, what is particularly sought by the aerospace industry. 3DCERAM already demonstrated the C3600 ULTIMATE’s capacities in printing big parts such as honeycombs and satellite mirrors. The printer also answers the needs in printing big series of small parts as foundry cores or lattices for other industries.

The historical C900 FLEX, which suits the largest type of customers for prototyping and production of small series, thanks to its building platform 300 mm × 300 mm × 100 mm has been perfected with SAM option. The SAM option enhances the prototyping skills of the printer making possible to run a prototype with only 100 ml of slurry.

Over the 15 past years, 3DCERAM has enhanced its know-how to offer a range of printers which could meet industrial needs by managing the all process of 3D-printing Technical Ceramics, believing that AM has now reached the degree of maturity required to transition to mass production.

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