

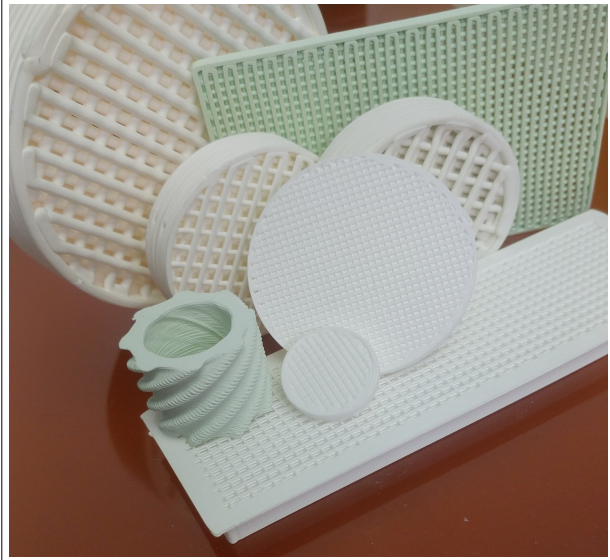


# C12 Advanced Technologies

Strong, High-Density 3D Printed Technical Ceramics  
complex designs, flexible production, and new applications



Competitively priced crucibles and labware for demanding applications.



Highly efficient lattice-structured substrates and catalyst supports.

**C12 Advanced Technologies** can provide complex alumina, zirconia, mullite, MgO, SiC and other technical ceramics that require Direct Write 3D Printing capabilities. Difficult shapes and geometries can be rapidly manufactured from customer supplied designs. Direct Write 3D Printing is not only the ideal choice for manufacturing rapid prototypes, but also cost effective for large-scale production.

Direct Write 3D Printing methods provide new opportunities for realizing previously unobtainable designs and geometries that can greatly enhance the performance of traditional ceramic components. Examples include efficient lattice structures and parts with complicated internal pathways. Direct Write 3D Printing techniques can deposit materials much faster than other "small-lot" 3D printing technologies, which opens up new possibilities for cost effective large-scale production. C12 Advanced Technologies can provide state of the art 3D components made with a complete range of technical ceramics including alumina, zirconia, mullite, ZTA, MgO, silicon carbide, composites and customer supplied materials.

## **Proven Applications Include,**

- Strong, high-purity crucibles and labware at competitive prices. Alumina, zirconia, SiC, ZTA and custom materials with quick turn-around times.
- Unique TGA and DTA thermal analysis labware with ultra-thin walls that provide the highest ratio of sample volume to crucible mass.
- High performance Lattice Filters™ and slag filters for molten metal alloys. **Lowest** possible introduction of contaminants into filtrate and **highest** working temperatures available (MgO > 2000C).
- Customized catalyst supports with engineered lattice structures and complex geometries. Repeatable pore sizes, flow characteristics, and catalyst coverage.