



**CERAMIC SLURRIES**  
High-Performance Materials  
For MOVINGLight® Technology  
3D Printers

**PRODWAYS**  
MACHINES

powered by



**ALUMINA**  
*PHOTX A100*

**SILICA**  
*SICAST 1200*

**ADVANCED AND INNOVATIVE MATERIALS  
FOR CERAMIC 3D PRINTING PRODUCTION**



**EXCELLENT  
MECHANICAL  
PROPERTIES**



**HIGH HARDNESS,  
CORROSION AND  
TEMPERATURE  
RESISTANCE**



**MINIMAL  
WARPING OR  
DISTORTION**



**SPECIFICALLY  
OPTIMIZED FOR  
CERAM PRO 3D  
PRINTERS**

[www.prodways.com](http://www.prodways.com)

# ALUMINA PHOTX A100

## Specifications :

**ALUMINA is the most widely used** ceramic material with near limitless manufacturing capabilities. SINTX's A100 Resin is a **fast-curing, high-purity alumina resin** specifically designed for Ceramic DLP 3D printing. Years of engineering have enabled the development which exhibit very high solids loading. Typical layer thickness is about 50  $\mu\text{m}$ , but thinner layers are possible, and the **final surface finish is excellent**. The minimum feature size is 0.150 mm, whether positive or negative, and the maximum wall thickness is 5 mm.

## Applications \*

Electronics, Electrical Insulation (tubing, sheets, bars, rods, discs), RF Antenna Windows, High-Speed Missile Radomes, Wear-Resistant Coatings, Ceramic Substrates, Catalyst Supports, Biomedical.

PROPERTY	TYPICAL	
% Theoretical Density (g/cc)	> 97 %	
Purity	> 99 %	
Curing wavelength (nm)	365 preferred and 405	
Print Time	Fast curing	
Typical Sintering Cycle	Temp (°C)	Time (hrs.)
	320	1-3
	600	1-3
	1650	2-4
Ramp rates	Part Geometry Specific	
Viscosity	Low	
Settling	Suitable for long prints or multi-day printing	
Green Strength	Good	
Layer Thickness	25 - 50 $\mu\text{m}$	

# SILICA SICAST 1200

PROPERTY	TYPICAL	
Density	Tailorable	
Solids loading	> 60 %	
Curing wavelength (nm)	365	
Print Time	Fast curing	
Typical Sintering Cycle	Temp (°C)	Time (hrs.)
	320	1-3
	600	1-3
Sintering	Tailorable	
Ramp rates	Part Geometry Specific	
Viscosity	Medium	
Settling	Suitable for long prints or multi-day printing	
Green Strength	High	
Layer Thickness	50 - 100 $\mu\text{m}$	

## Specifications :

Silica resin is specifically **designed for investment casting**. SINTX's SiCast Resin has 8 years of engineering behind it and was one of the first resins developed for use in the investment casting of super alloys. Typically, the layer thickness ranges from 50 to 100  $\mu\text{m}$ . It offers good **green strength** and **minimal densification** on sintering, **improving leachability**. This resin **can be customized** for your particular alloy and casting conditions.

## Applications \*

Casting Cores, Crystal Casting Of Turbine Blades, Ceramic Shell Casting, Aerospace Brakes, Igniters for Turbine Engines, Engine Components, Rolling Contact Bearings, Electrical Insulation Coatings, Investment Casting Patterns, Composite Tooling Rocket Nozzles.

\* Please note that the application is contingent upon factors including geometry, build style, and material, and variations in these elements may affect outcomes