SIRAYA Tech

Sculpt - High Temp Resin

Ultra White

Siraya Tech Sculpt Ultra White is a premium ceramic composite resin offering minimal shrinkage and high resolution for highly precise prints.

It delivers exceptional chemical resistance and a very low water absorption rate of 0.01%. With outstanding high-temperature resistance up to 250°C, it is ideal for demanding parts.

Ideal for:

- Low run injection molds
- Vacuum forming
- Dental Application
- Artistic sculptures
- Designed for vulcanized rubber process

siraya.tech

Property Data

Mechanical Properties	Measure	Method
Tensile Stress at Yield	33	ASTM D638
Tensile Stress at Break	31	ASTM D638
Young's Modulus	8000	ASTM D638
Elongation at Break	1	ASTM D638
Flexural Modulus	7500	ASTM D790
Flexural Stress at Yield	120	ASTM D790
Flexural Strain at Break	14	ASTM D790

Other Properties	Measure	Method
HDT at 0.455 MPa	250	ASTM D648
IZOD Impact (Notched) J	22	ASTM D256
Shore Hardness	99D	ASTM D2240
Solid Density	1.6	ASTM 792
Water Absorption (24hr)	0.01%	ASTM D570

Property Data

Liquid Properties	Measure	Method
Viscosity at 25°C (77°F)	650	ASTM D7867
Liquid Density	1.22	ASTM D1475

Before Printing

Steps	Key Point
1	Before opening the bottle for the first time, warm up the bottle, turn it over for 25℃, then shake it up and down for 1-2 minutes.
2	Please keep the print temperature at 25-30 °C.
3	Before printing Sculpt Ultra, shake it up and down for 1-2 minutes.
4	Use a plastic scraper to mix up the resin already in the vat.

Work Flow

Printing

Material Name	Sculpt High-Temp Resin (Ultra White)
Primary Printer Compatibility	MSLA / LCD/ DLP 3D Printers
Secondary Printer Compatibility	385nm - 405nm 3D Printers
Hardware Requirement	Access to exposure control is required
Supported Slicer Software	Chitubox, Lychee Slicer, Anycubic Photon Workshop, Blueprint Studio, Elegoo Satellite
Slicer Profiles Download	Siraya Tech Print Settings Download

Clean

Cleaning Step / Category	Instructions & Recommendations
Cleaning Solvents	• Preferred: 95% concentrated Ethanol or IPA. • Alternative: Methanol (must not contain acetone)
Cleaning Time	Submerge parts in the solvents several times for a total of 4-5 minutes, using the ultrasonic cleaner.
Submersion Limit	Do not submerge parts in alcohol for more than 5 minutes.
Extra Step	For complex model, use a painter brush (or any brush made with hair) to gently remove excess resin from the printed part.

Work Flow

Drying

Drying	Remove alcohol by using an oven for 7-8 minutes (using a hair dryer requires 10 minutes)
	Note: For complex parts with cavities, repeat the clean/dry cycle multiple times.
Quality Check	Touch the dried surface. If it is still sticky, wash and dry the part again until smooth.

Post Curing

Step / Factor	Instructions & Recommendations
Preparation	Ensure the resin is completely cleaned off and absolutely no alcohol is left on the print before curing.
UV Specifications	Use a UV light source with a wavelength of 395-405nm.
Curing Time	Cure for approximately 15 minutes to reach optimal strength. Parts must be fully cured before use.
Recommended Method	Direct curing without water for moisture control.

Work Flow

Sanding

Preparation	1000 grit sandpaper and mineral oil or water
Tips	Mineral oil adds luster

Mold Release Eecommendation

1	*Mold Release 1*
2	*Mold Release 2*
Tips	Our User has said that Rustoleum Clear Coat Engine Enamel worked well as a release coating.
Explanation	Sculpt Ultra is different from metal mold and the normal Sculpt Mold. 1. Sculpt Ultra is made with composite and has a rougher surface. 2. This rougher surface leads to a stronger grip on the injected material. 3. Mold releases and coating can fill in those tiny surface valleys so it has less grip to the parts.