

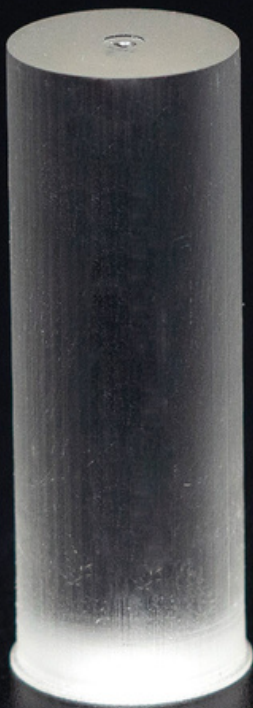


Siraya Tech

Technical Data Sheet

Siraya Tech Craft Ultra Clear Resin

Before processing



After processing



Product Introduction

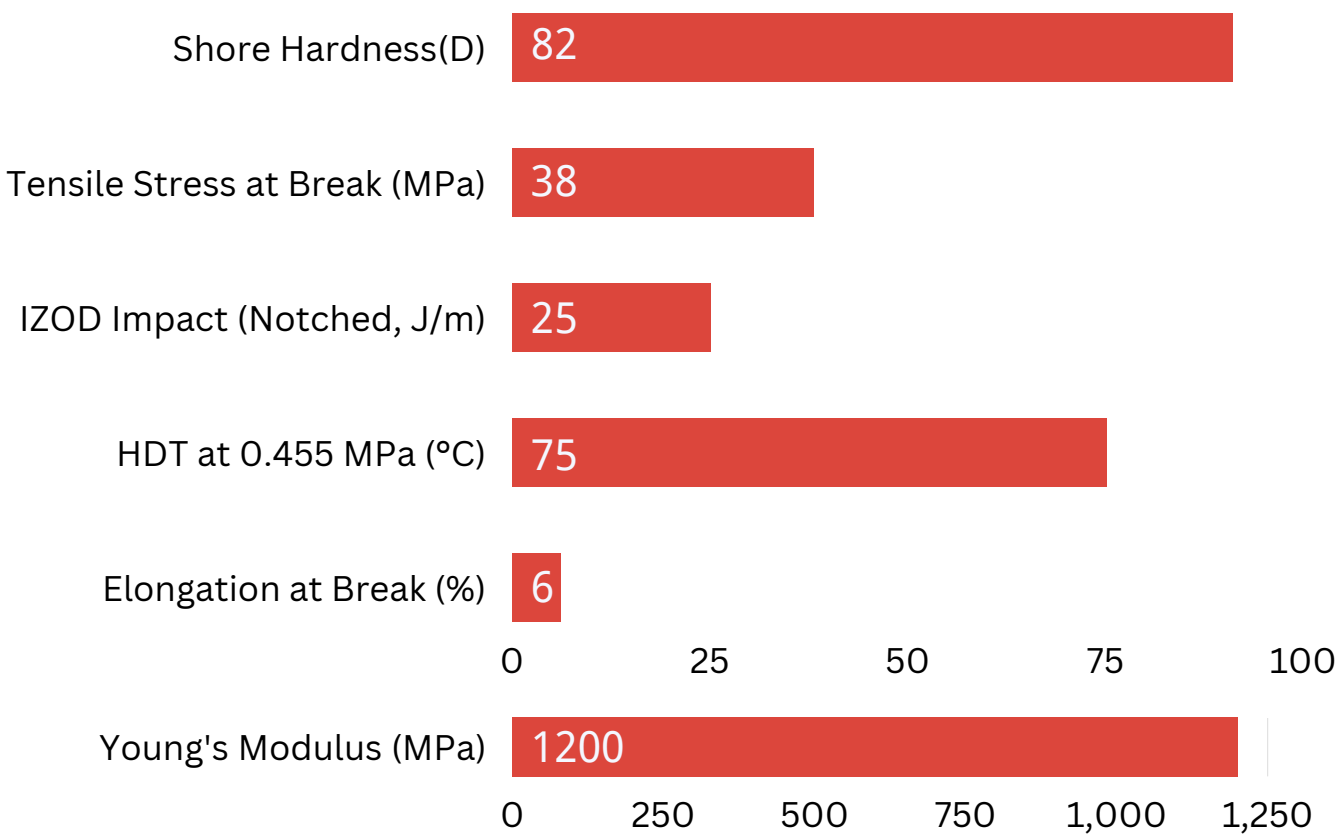
Craft Ultra Clear - Creative Resin

Key Features

- High transparency with the use of coating
- Strong resistant to yellowing
- High hardness and strong resistance to chemicals
- Refractive index of 1.52

Application:

- Cosplay helmet lens
- Transparent trophy, vase, and dice
- Any creative printing
- Desktop miniatures



Property Data

Mechanical Properties	Measure	Method	Post Processed
Tensile Stress at Yield (MPa)	39	ASTM D638	-
Tensile Stress at Break (MPa)	38	ASTM D638	-
Young's Modulus (MPa)	1200	ASTM D638	-
Elongation at Break (%)	6	ASTM D638	-
Flexural Modulus (MPa)	1500	ASTM D790	-
Flexural Stress at Yield (MPa)	35	ASTM D790	-
Flexural Strain at Break (MPa)	1.2	ASTM D790	-

Other Properties	Measure	Method	Post Processed
HDT at 0.455 MPa	75	0.455 MPa	-
IZOD Impact (Notched) J	25	-	-
Shore Hardness (D)	82	-	-
Solid Density (g/cm3)	1.15	-	-
Water Absorption (24hr)	0.50%	24hr	-
Biocompatibility	-	-	-

Liquid Properties	Measure	Method	Post Processed
Viscosity at 25°C (77°F)	300	25°C (77°F)	-
Liquid Density (g/mL)	1.1	-	-

Work Flow

Bubbles

Here are some tips to reduce and remove bubbles of Clear Resin:

- Avoid shaking the resin before printing to minimize bubbles.
- Pour the resin using the wall of the vat instead of directly to the base of the vat to reduce the amount of bubbles from pouring.
- Let the resin sit for 30 minutes to let the bubbles escape.
- Warm up the resin slightly by placing the bottle in warm water for 10 minutes to help the bubbles escape before pouring it.
- Use a vacuum chamber for professional-level bubble removal. This may not always be necessary, especially if your application does not require a large, single-solid piece print with no hollowing.

Printing

Craft Ultra Clear Resin is a premium quality transparent 3D printing resin. Designed for applications requiring toughness, high definition, and non-yellowing, and it is low odor and easy to print, making it ideal for innovative design and prototyping.

To maintain its clarity, avoiding over-curing and applying a clear varnish is vital.

To achieve optimal results with Craft Ultra Clear resin, you need to use the appropriate slicer profiles for your printer model and software. You can download the slicer profiles for Chitubox and Lychee slicers from this link: <https://siraya.tech/pages/print-settings-download>

Clean

Here are some tips for cleaning your printed parts:

- Use a painter brush (or any brush made with hair) to remove excess resins on the printed part.
- Use 95% concentrated Ethanol (preferred) or IPA to clean. Some form of methanol should work but make sure it does not contain acetone.
- After 2-3 minutes of cleaning action, remove alcohol as soon as possible with a hair dryer or air blower. It may be a good idea to clean/dry multiple times for complex parts with lots of cavities.
- You can check by touching the dried surface of the part to see if it is still sticky. If the dried surface is still sticky, wash some more and dry again.

Work Flow

Post Curing

Here are some tips for post-curing your printed parts:

- Craft Ultra Clear reached its optimal strength when the printed part was post-cured with UV after cleaning. Use 395-405nm UV light and cure for about 2 minutes.
- Please do not over-cure. The print will still get yellow if it receives too much UV light.
- Make sure the resin is completely cleaned off and there is no alcohol left (it needs to be dry) on the print before curing.

Reducing / Removing Yellow

- Minimize Post UV Curing
- Place the cured print in hot water (50-70C) for 20 minutes can help to remove yellowing. This is a good reference: [*How to reduce yellowing*](#).
- seal the print in the coating to prevent further UV yellowing. Some users even skip post-curing and go straight to clear coating and allow natural UV light to slowly post-cure the print
- Repeated exposure in the vat will cause all resins to turn yellow. Therefore, using what is needed without putting too much resin in the vat is best.

Transparency

Like any clear resin, prints made with Craft Ultra Clear will have a foggy translucent look right after cleaning and post-curing. This is due to layer lines from the printing process that refract light and create fogginess.

To restore the clear look, there are two approaches:

- Sanding

This is good if the object has lots of flat surfaces. [*Here is a video link on how to sand*](#).

- Clear Coating

There are many types, and here are some used by our users:

1. [*Clear Coating 1 link*](#).
2. [*Clear Coating 2 link*](#).
3. How to apply Clear Coating? [*Here is a video link*](#).