

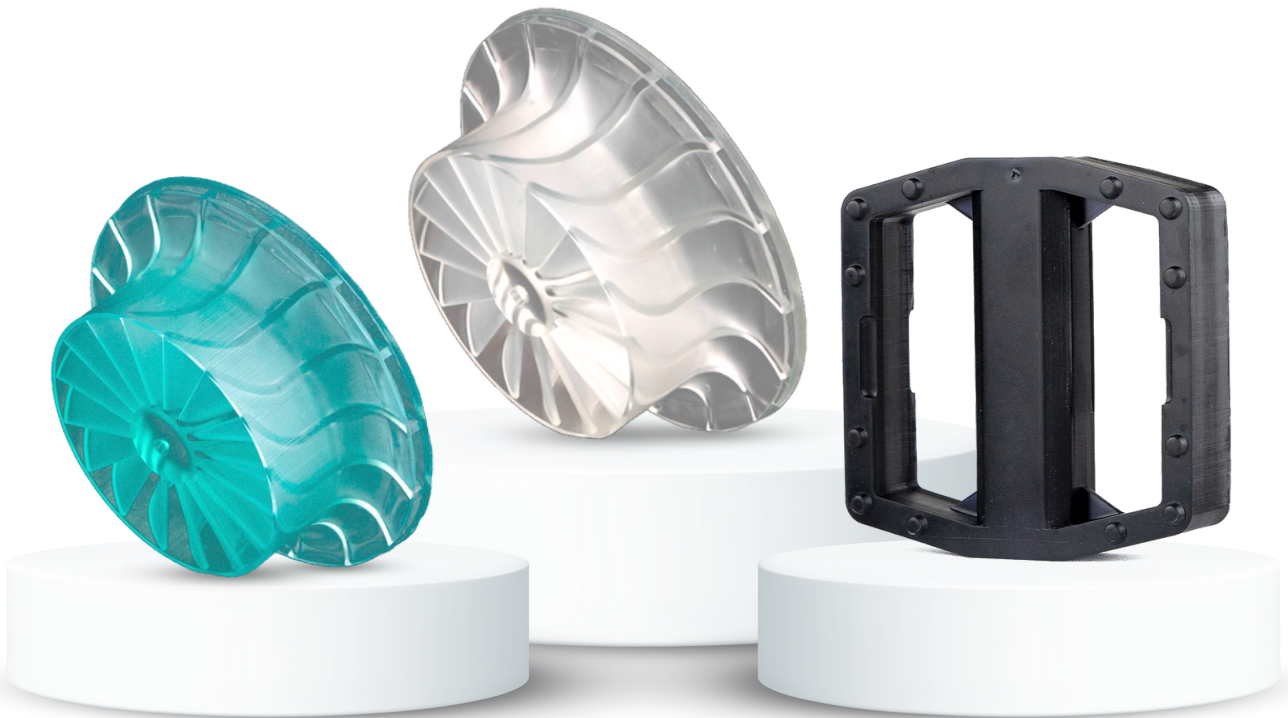


Siraya Tech

Technical Data Sheet

Siraya Tech Blu Tough Resin

Emerald Blue, Clear V2, Obsidian Black



Product Introduction

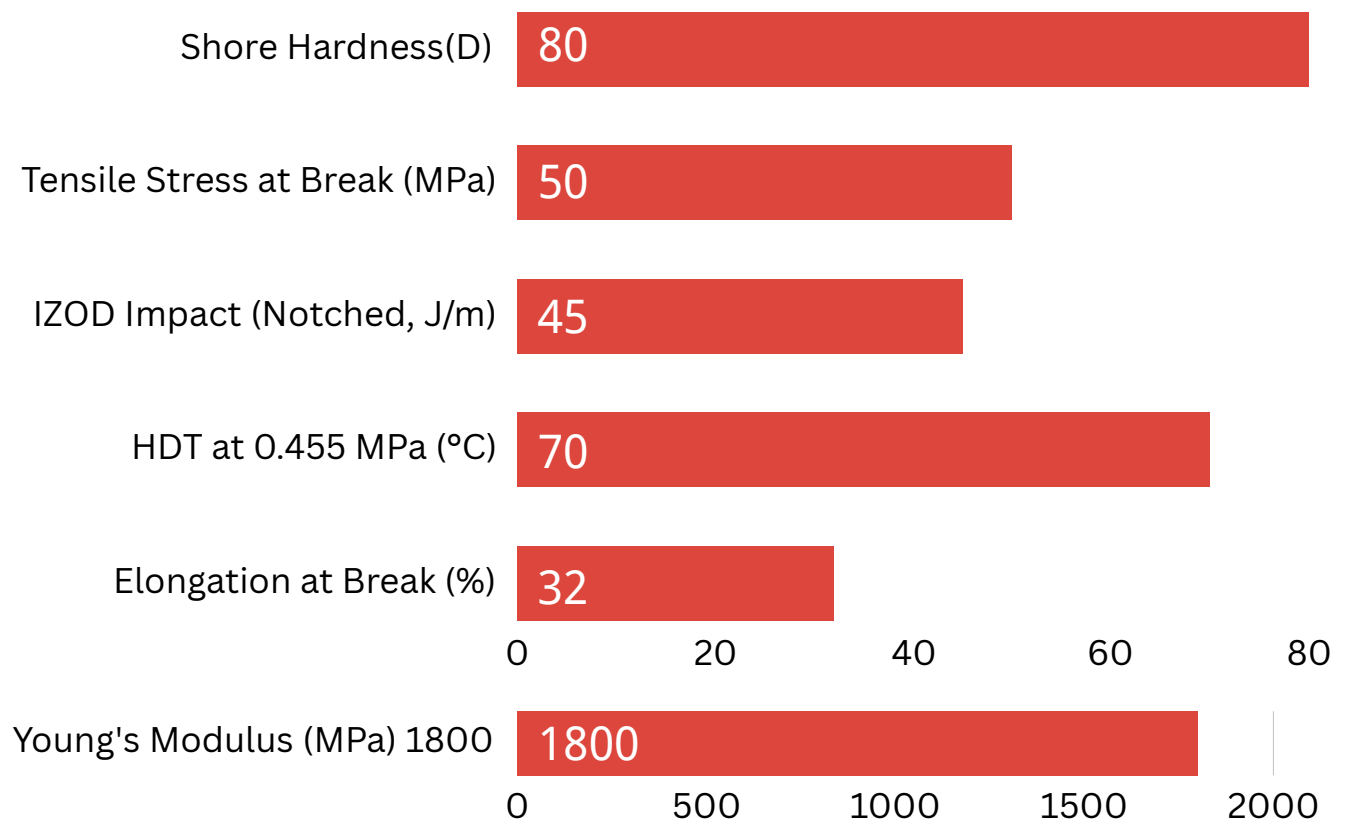
Blu - Tough Resin

Key Features

- Blu is a tough engineering resin that has excellent mechanical properties.
- High hardness and robustness make it suitable for various parts and tool making.
- It is also bio-compatible as certified under ISO 10993-10 and ISO - 10993-5.

Application:

- Engineering Prototypes
- Mechanical Aids
- Fixtures and Jigs
- Medical Devices



Property Data

Mechanical Properties	Measure	Method	Post Processed
Tensile Stress at Yield	51	ASTM D638	-
Tensile Stress at Break	50	ASTM D638	-
Young's Modulus	1800	ASTM D638	-
Elongation at Break	40	ASTM D638	-
Flexural Modulus	1750	ASTM D790	-
Flexural Stress at Yield	-	ASTM D790	-
Flexural Strain at Break	-	ASTM D790	-

Other Properties	Measure	Method	Post Processed
HDT at 0.455 MPa	75	0.455 MPa	-
IZOD Impact (Notched) J	45	-	-
Shore Hardness (D)	80	-	-
Solid Density	1.15	-	-
Water Absorption (24hr)	-	-	-
Biocompatibility	√	10993-10	Link to certification

Liquid Properties	Measure	Method	Post Processed
Viscosity at 25°C (77°F)	800	25°C (77°F)	-
Liquid Density	1.1	-	-

Work Flow

Printing

Blu tough resin is a versatile material that can be used with different types of 3D printers. It is specially designed for MSLA/LCD printers yet, it can also be printed on some of the 405nm SLA and DLP printers if you have access to exposure control.

To achieve optimal results with Blu tough resin, you need to use the appropriate slicer profiles for your printer model and software. You can download the slicer profiles for Chitobox 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.
- Do not submerge the parts in alcohol for more than 5 minutes.
- After cleaning, remove alcohol as soon as possible with a hair dryer or air blower. For complex parts with lots of cavities, it may be a good idea to clean/dry multiple times.
- 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.

Post Curing

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

- Blu reached its optimal strength when the printed part was post-cured with UV after cleaning. Use 395-405nm UV light and cure for about 15 minutes.
- Make sure the resin is completely cleaned off, and there is no alcohol left (it needs to be dry) on the print before curing.
- Curing by submerging the object in water will significantly increase curing efficiency.