Siraya Tech

Technical Data Sheet

Siraya Tech Blu Nylon

Mecha White

Tough and wear-resistant Resin

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Product Introduction

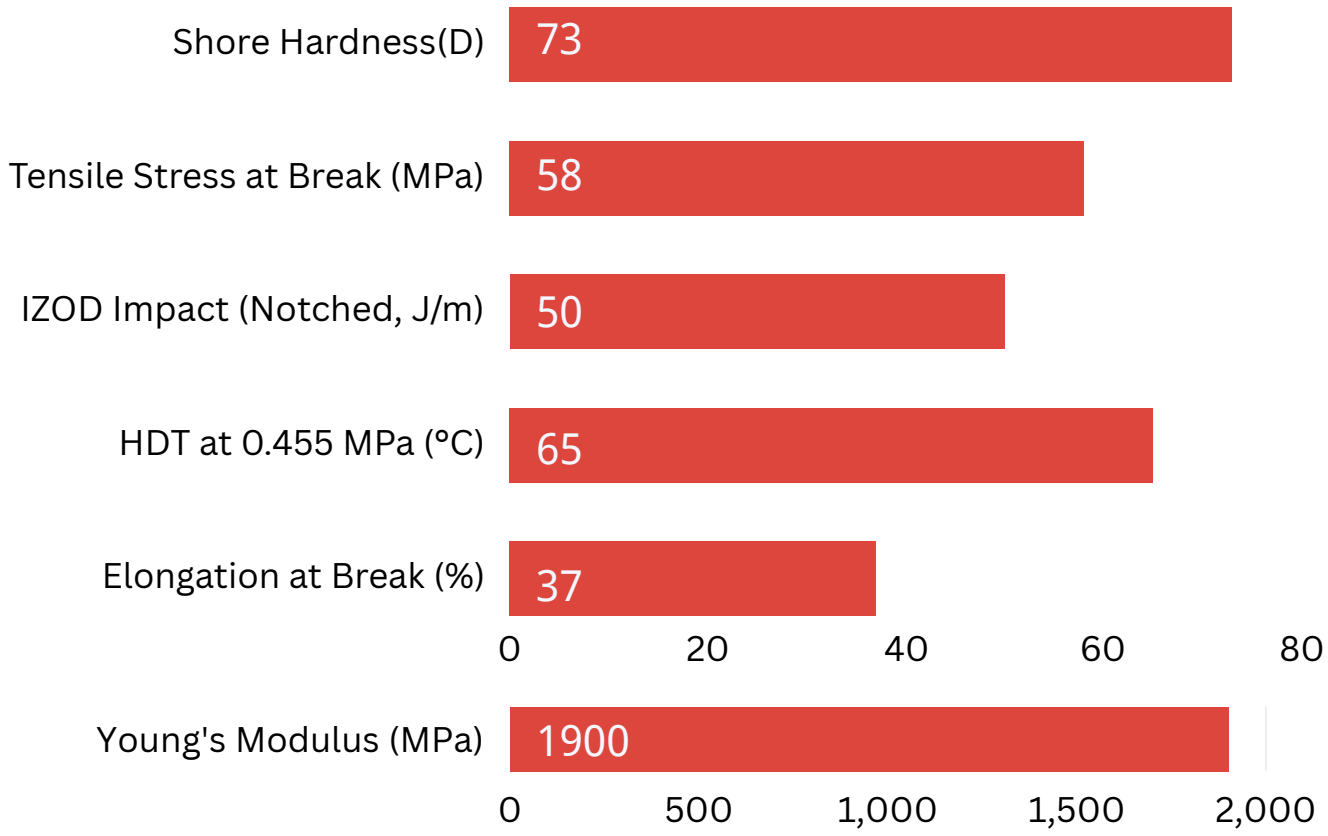
Blu Nylon Mecha- Tough and wear-resistant resin

Key Features

- Blu Nylon 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.
- Higher impact and wear resistance than normal Blu.

Application:

- Gear and joint parts
- Engineering Prototypes
- Mechanical Aids
- Fixtures and Jigs
- Medical Devices
- Load-bearing parts



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Property Data

Mechanical Properties	Measure	Method	Post Processed
Tensile Stress at Yield	63	ASTM D638	-
Tensile Stress at Break (MPa)	58	ASTM D638	-
Young's Modulus (MPa)	1900	ASTM D638	-
Elongation at Break (%)	37	ASTM D638	-
Flexural Modulus	1830	ASTM D790	-
Flexural Stress at Yield	-	-	-
Flexural Strain at Break	-	-	-

Other Properties	Measure	Method	Post Processed
HDT at 0.455 MPa	65	0.455 MPa	-
IZOD Impact (Notched) J	50	-	-
Shore Hardness (D)	73	-	-
Solid Density	1.25	-	-
Water Absorption (24hr)	2%	-	-
Biocompatibility	√	10993-10	Link to certification

Liquid Properties	Measure	Method	Post Processed
Viscosity at 25°C (77°F)	1000	25°C (77°F)	-
Liquid Density	1.15	-	-

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Work Flow

Printing

Blu Nylon Mecha is a tough and wear-resistant resin, and it 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.

Blu Nylon Mecha is a thick resin best prints over 25C. Due to its unique Mecha low surface, its bottom exposure time is much higher than one would expect.

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 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.
- 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.