

TENSILE | INDUSTRIAL STRENGTH RESIN

1. Product Overview

TENSILE™ is a high-strength, low-flex industrial resin engineered for durable, rigid 3D printed parts.

It combines extreme tensile strength, stiffness, and dimensional accuracy with excellent surface finish.

Designed for functional prototypes and end-use components requiring high load resistance.

The resin prints cleanly with strong green strength and minimal warping for consistent, reliable output.

Ideal for industrial, engineering, and automotive applications where rigidity and precision are essential.

2. Key Features & Benefits

- ✓ Extreme tensile and flexural strength
- ✓ High stiffness with low elongation
- ✓ Excellent surface finish for machining or painting
- ✓ Reliable green strength reduces print failures
- ✓ Easy-release formula compatible with most printers
- ✓ Smooth, detailed results with low shrinkage

3. Applications

- ★ Functional prototypes and engineering components
- ★ Industrial and automotive part production
- ★ Tooling and jigs requiring high rigidity
- ★ Consumer goods and load-bearing models

4. Physical Properties

Property	Value	Test Method
Viscosity @ 25 °C	500 cP	ASTM D2196
Odour	Low	VDA 270
Shelf Life	36 months	Internal QC
Optimal UV Cure	365–425 nm	Internal
Cure Speed	Fast (3–5 sec layers)	Internal
Tensile Strength (MPa)	86.7	ASTM D638
Elongation at Break (%)	2.5	ASTM D638
Young’s Modulus (GPa)	1.40	ASTM D638
Shore Hardness (D)	92	ASTM D2240
Heat Deflection Temp (°C)	64	ASTM D648

5. Printer Compatibility

- MSLA resin printers
- Curing wavelength 365–405 nm
- Tested with Phrozen, Anycubic, Elegoo, Creality, Uniformation, and many more!

10. Disclaimer

The information provided in this Technical Data Sheet is based on laboratory testing and intended as a general guideline. Actual results may vary depending on printing conditions, curing methods, and environmental factors. Monocure3D assumes no liability for improper use of this product.

6. Printing & Post-Processing Guidelines

Tested with: Anycubic M7 / Phrozen Mini 8K

Layer thickness 50–100 µm
Base layer exposure 35–45 seconds
Normal exposure 2.5–4 seconds
Lift speed 70 mm/s
Lift height 8–12 mm



(Refer to printer settings database)

Post-Processing Steps

1. Wash in ResinAway® or IPA immediately after printing
2. Ultrasonic clean in ResinAway® for 5–10 minutes
3. Dry with compressed air or air-dry naturally
4. UV cure for at least 1 hour
5. Optional heat cure at 60°C for 1 hour
6. Final rinse with fresh water

7. Health & Safety Information

- Not for intended for intraoral or direct food contact use.
- Use in a ventilated area. Avoid skin & eye contact.
- If contact occurs, wash thoroughly with soap and water.
- Refer to SDS (Safety Data Sheet) for complete handling guidelines www.monocure3d.com.au

8. Storage & Handling

- **Storage Temperature:** 10–30°C (Avoid direct sunlight)
- **Shelf Life:** 36 months
- **Handling:** Use recommend red PPE eg. **gloves & safety goggles** when handling liquid resin
- **Disposal:** Follow **local hazardous waste disposal regulations**.

9. Ordering Information

- **Available Sizes:** 1L & 5L UV-safe bottles
- **Where to Buy:** Available through **Monocure3D resellers**
- For technical support or bulk orders, contact:

support@monocure3d.com.au | www.monocure3d.com.au