

HEATRESIST | HIGH-TEMPERATURE RESIN

1. Product Overview

HeatResist™ is an advanced high-temperature engineering resin formulated for professional applications requiring superior heat resistance and dimensional stability.

It withstands sustained temperatures up to 150 °C without warping, cracking, or shrinking.

The resin maintains rigidity and precision under thermal stress, making it ideal for functional prototypes and moulding tools. With low odour and consistent performance,

Available in White, Slate Grey, Clear, and Black, and customisable with the CustomMix™ additive system.

2. Key Features & Benefits

- ✓ High heat resistance up to 150°C*
- ✓ Excellent rigidity and dimensional stability
- ✓ Low shrinkage and no warping under heat stress
- ✓ Durable surface finish suitable for functional parts
- ✓ Low odour and consistent batch quality
- ✓ Compatible with MSLA and DLP printers
- ✓ Customisable with the CustomMix™ system

3. Applications

- ★ Functional prototypes exposed to heat
- ★ Thermal test components and enclosures
- ★ Vacuum or pressure mould tooling
- ★ Automotive and industrial parts
- ★ Engineering models requiring heat stability

4. Physical Properties

Property	Value	Test Method
Viscosity @ 25 °C	400–600 cPs	ASTM D2196
Odour	Low	VDA 270
Shelf Life	36 months	Internal QC
Optimal UV Cure	365–405 nm	Internal
Cure Speed	Moderate (4–6 sec layer)	Internal
Tensile Strength (MPa)	58	ASTM D638
Elongation at Break (%)	5.0	ASTM D638
Young’s Modulus (GPa)	1.70	ASTM D638
Shore Hardness (D)	86	ASTM D2240
Heat Deflection Temp (°C)	150	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 (recommended)
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