

STUDY DENTAL MODEL RESIN

1. Product Overview

STUDY™ Dental Model Resin is a high-precision **model resin** designed for **3D-printed dental applications**, including diagnostic models, case planning, and orthodontic study casts. Engineered for **dimensional accuracy, smooth surface finish, and durability**, it ensures high-quality results in **MSLA and DLP** resin 3D printers.

2. Key Features & Benefits

- ✓ High Precision & Accuracy
- ✓ Smooth Surface Finish
- ✓ Easy to Print & Post-Process
- ✓ Optimised for MSLA & DLP Printers
- ✓ Durable & Hard – Resistant to chipping and breakage

3. Applications

- Diagnostic Models & Study Casts
- Orthodontic & Restorative Planning
- Visual Case Presentations
- Prosthetic & Crown Preparation Models
- Patient Demonstrations

4. Physical Properties

Property	Value	Test Method
Appearance	Opaque Grey	Visual
Odour	2. Negligible	VDA 270
Tensile Strength (MPa)	47	ASTM D638
Viscosity @ 25°C cP	400-600	ASTM D2196
Density g/cm³	1.1	ASTM D792
Hardness (Shore D)	75	ASTM D2240
Flexural Stress (MPa)	124	ASTM D790
Elongation at Break	3.0%	ASTM D638
Heat Deflection Temp	55°C @ 0.45MPa	ASTM E1356

5. Printer Compatibility

- Compatible with MSLA & DLP 3D Printers
- Asiga, SprintRay, Phrozen, Anycubic, Elegoo, and more
- Curing wavelength: 365–405nm UV

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

Printing Parameters

Layer Thickness: 50–100µm
Base Layer Exposure: 30 seconds
Normal Layer Exposure: 2 seconds
Lift Speed: 80 mm/s
Lift Height: 10 mm



(Refer to printer settings database)

Post-Processing Steps

1. Pre-wash in ResinAway® & brush to remove excess resin
2. Submerge in ResinAway® in Ultrasonic for 5-10 minutes.
2. Dry the Model – Allow to air-dry or use compressed air.
3. Post-Cure – UV cure for 30-60 minutes.
4. OTTOFLASH G171: 2,000 flashes (recommended)
5. Final Finishing – Rinse with Fresh Water.

7. Health & Safety Information

- Not approved for intraoral use.
- Use in a well-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