

SPLINT BIOCOMPATIBLE RESIN

1. Product Overview

SPLINT™ Resin is a high-strength, easy-to-print resin developed for producing night guards, occlusal splints, and bite plates using DLP and MSLA 3D printers. It offers excellent fracture resistance, smooth surface finish, and stable intraoral fit over time. Designed with a low-odour formulation and reliable curing profile, SPLINT™ delivers high-quality results while simplifying the digital workflow for dental professionals and labs.

2. Key Features & Benefits

- ✓ High strength and dimensional stability
- ✓ Smooth surface finish straight from the printer
- ✓ Extreme low odour formulation for easier handling
- ✓ Clear material for aesthetic appliances
- ✓ Excellent long-term wear resistance
- ✓ Compatible with DLP & MSLA 3D printers

3. Applications

- Occlusal splints
- Night guards
- Bite plates
- Bruxism appliances
- TMJ treatment devices

4. Physical Properties

Property	SPLINT™ SOFT	HARD	Test Method
Appearance	Clear	Clear	Visual
Odour	1. Low	1. Low	VDA 270
Tensile Strength (MPa)	46-52	61-72	ASTM D790
Flexural Strength (MPa)	45	48	ASTM E1356
Elongation at Break (%)	105	20	ASTM D638
Viscosity @ 25°C cP	600	700	ASTM D2196
Density g/cm³	1.1	1.1	ASTM D792
Hardness (Shore D)	85	92	ASTM D2240
Flexural Modulus (MPa)	~1,000–1,400	>2,500	ASTM D790

5. Printer Compatibility

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



(Scan for our 3D printer settings database)

10. Disclaimer

The information provided in this Technical Data Sheet is based on laboratory testing and is intended as a general guideline. Actual results may vary depending on printing conditions, curing methods, and environmental factors. Monocure3D Pty Ltd and its official resellers assume no liability for improper use of this product, product performance, or regulatory compliance.

6. Printing & Post-Processing Guidelines

Parameters	MSLA	DLP
Layer Height	50µm	50µm
Burn In Exposure	30sec	(See Below)
Normal Exposure	3-5secs	(See Below)
Support Size	Medium/Heavy	Medium/Heavy

Asiga Max UV, 4K or Ultra: [Download .ini file](#) from our website or use KeySplint Soft Profile on Composer Slicer Software.

SprintRay 95 or 95s: Use Guide 3 Setting on RayWare Slicer Software.

Post-Processing Steps

1. **Wash:** Submerge and brush in ResinAway®, then ultrasonic clean for 5–10 mins.
2. **Dry:** Air-dry or use compressed air.
3. **Post-Cure:** Cure under 395–405nm UV light for 10–20 mins.
4. **Warning:** Avoid Ottotflash units and 365nm lamps to reduce risk of yellowing.
5. **Yellowing Tip:** Any yellowing post-cure will clear in 24 hrs. Speed up with gentle heat (hair dryer, heated chamber or Autoclave Sterilisation Unit).
6. **Finish** – Final rinse with RinseOFF™ or IPA. Let dry fully before use.

7. Health & Safety Information

Use in a well-ventilated area and avoid direct skin or eye contact with uncured resin. If contact occurs, wash thoroughly with soap and water. Refer to the Safety Data Sheet (SDS) for full handling instructions. ARTG listing pending update of declaration of conformity submission.

8. Storage & Handling

- **Storage Temperature:** 10–30°C (Avoid direct sunlight)
- **Shelf Life:** 24 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:** 500g, 1kg & 5kg 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