



Bilby 3D

MATERIAL DATA SAFETY SHEET

Issued in Australia by Bilby 3D Pty Ltd.

The attached Material Data Safety Sheet has been prepared by the manufacturer outside Australia.

In accordance with Australia WHS regulations the following Australian contact details apply

Section 1: AUSTRALIAN COMPANY DETAILS

In Australia the product is imported and distributed by:
Bilby 3D Pty Ltd

Mailing Address :

Kingsgrove Business Centre, 7/192 Kingsgrove Rd, Kingsgrove NSW 2208

Head Office Address :

Kingsgrove Business Centre, 7/192 Kingsgrove Rd, Kingsgrove NSW 2208

Contact Phone: 1800 847 333

Section 2: AUSTRALIAN EMERGENCY CONTACT

Emergency Contact

In the event of an emergency please contact:

Poisons Information Centre 24 hour Telephone Advice Line on 13 11 26

Section 3: AUSTRALIAN ISSUE DATA

Date of Issue : 1 March 2020

GINGIVA™ Gum-Like Dental Resin



Gingiva™ Pink - Colours may vary from screen image



TECHNICAL DATASHEET

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Company Information

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Product Description

Monocure 3D's Flexible Dental Resin, GINGIVA™ helps improve implant workflows and produces natural-looking, flexible gum-like parts for dental implant models. The elastic material is tear-resistant, flexible, and easy to adjust via grinding if needed.

SKU(s): DGR-3987PK, DGS-3988PK

Material: Soft/Flexible Urethane Based Photopolymer

Available Colour(s): Light Pink

Suitable Models: Gingiva | Soft Tissue | Gum-Like | Planning Appliances

NB: This resin is not approved for intra-oral applications.



/product-category/resins/dental-resins/gingiva/



GINGIVA™

Gum-Like Dental Resin

Our GINGIVA™ flexible resin was developed specifically for printing Gingiva sections for 3D printed dental models. The material is available in two formulas for MSLA and DLP 3D printers. It can print within a wide range of UV, between 255 and 425nm.

PRINTING TIPS

- ✔ Ensure the resin is mixed well by shaking the bottle before every print.
- ✔ For optimal results, ensure 3D models are designed solid, with heavy and dense supports if required, and consider printing directly on the build plate due to its softness.
- ✔ Always dial-in new resins using our calibration models.
- ✔ For best results, and a safer alternative, clean models with our ResinAway® solution.

RESIN COMPATIBILITY: DLP & MSLA 3D Printers Guide

GINGIVA™ Dental Model Resin is available in two formulas. Since DLP printers output more power than MSLA, we have a version to cover both system types.

Choose the DLP formula if your printer uses a projector module (DLP) to expose the layers. These include brands and models such as the MoonRay, SprintRay, Peopoly Moai, Asiga UV-Max & Pro 4K, Phrozen Make, B9 Creator, Flashforge Hunter, XYZ Nobel, and Kudo Titan.

If your 3D printer uses an LCD screen and a LED array (MSLA) to expose the layers, you must use our regular MSLA formula. These include Anycubic, Phrozen, Creality, Elegoo, Epax, Peopoly, Prusa, Uniz, Wanhao, WOW SparkMaker & Kelant.



Easy-to-Print Formula

This Flexible resin was developed to 3D print with ease. It can be used in conjunction with our STUDY™ or PRECISE™ model resins.



Excellent Tear Resistance

A Semi-Flexible material with the right amount of hardness allows easy trimming without tearing. Has excellent mechanical properties after hardening.



Comparable to Conventional

It features Shore A hardness of 62 and is comparable to conventional materials, so technicians can adopt digital processes.



Multi-compatible formulas

It will work with all 3D resin printers. Choose the formula that is best suited to work with your DLP/MSLA 3D printer.

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GINGIVA™

Gum-Like Dental Resin

MECHANICAL PROPERTIES

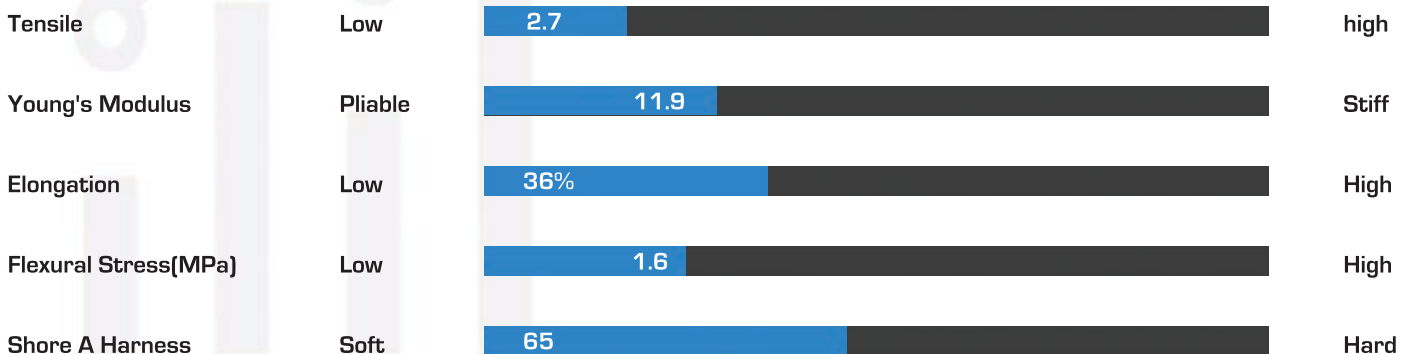
Method Code: ASTM D638-14
Product: Monocure GINGIVA™ Resin (50µm)
Acceptance Code: Supply Findings
Specimen Type: Rectangular beam samples (Type IV)
Equip' Serial No: UTM Serial No. 075
Conditioning: Tested at ambient temperature



SKUs	DGR-3987PK, DGS-3988PK	Flexural Band Span (mm)	32
Cross-Sectional Area (mm ²)	25.29	Max Load Applied (N)	26
Max Force (kN)	0.32	Flexural Stress (MPa)	7
Tensile Strength (MPa)	2.7	Max Flex Strain (mm/mm)	0.5
Elongation at Break	36%	Shore Hardness (A)	65
Young's Modulus (GPa)	11.9	Heat Deflection Temp	45°C @ 0.45MPa

GINGIVA™ flexible resin can be printed at a range of layer heights, and for optimal results, ensure 3D models are designed solid, with heavy and dense supports if required, and consider printing directly on the build plate due to its softness.

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GINGIVA™


Gum-Like Dental Resin

MSLA LIQUID PROPERTIES

SKUs	DGR-3987PK
Colour(s)	Pink
Viscosity	400cps @ 25°C (BrookfieldRVT)
Odour	Negligible Characteristics
Shelf Life	36 months
Active Solids	100%
UV Cure	225nm to 420nm
Cure Speed	1.5-7 seconds per layer with UV 405um LED

TECHNICAL

Storage	Dark, cool & dry place
Wash Up	RESINAWAY® or IPA (Isopropyl Alcohol)
Compatible MSLA Printers	Anycubic Phrozen Creality Elegoo Epax Peopoly Prusa Uniz Wanhao WOW SparkMaker Kelant Not Listed – Contact Us




[monocure3d.com.au/printers]

DLP LIQUID PROPERTIES

Product Code(s)	DGS-3988PK
Colour(s)	Pink
Viscosity	400cps @ 25°C (BrookfieldRVT)
Odour	Negligible Characteristics
Shelf Life	36 months
Active Solids	100%
UV Cure	225nm to 420nm
Cure Speed	3-7 seconds per layer with UV 405um

DATASHEET

Storage	Dark, cool & dry place.
Wash Up	RESINAWAY® or IPA
Compatible Printers	Asiga (Scan QR Code for .ini configuration files) SprintRay Peopoly MoonRay Phrozen Make B9 Creator Flashforge Hunter XYZ Nobel Kudo Titan Not Listed – Contact Us



[printers/asiga-max-uv-dental]



FIND YOUR PRINTER SETTINGS

Access the slicer settings for dialing in with our all-resin systems by selecting your 3D printer(s) from the list available on our website, where you can also find information on printer specifications, reviews, and videos; if your printer is not listed, please do not hesitate to contact us.



PRINTER NOT LISTED?

Feeling frustrated with calibration? Download our Calibration Model to fine-tune your printer and get the best results. Need further assistance? Our local resin 3D printing experts are just an email away at support@monocure3d.com.au if you need one-on-one support.



DISCLAIMER

Please note that while our settings serve as a useful guide, not all 3D printers are created equal. Due to variations in make and model, your 3D printer may require different layer durations to achieve the desired results. Call us on +612 (0) 9738 5340



GINGIVA™

Gum-Like Dental Resin

WORKFLOW PROCEDURES

Most 3D Printers & Resin materials are unique and require setting up before first-time use.

We recommend that you dial-in new printers and resins using one of our handy calibration models that can be found at <https://monocure3d.com.au/product-category/3d-models/calibration-models/>

PRINTER SETTINGS

The following example settings have been formulated with consideration for monochrome MSLA 3D printers employing a 405nm light source. For more information pertaining to all our materials and most popular 3D printer models, please refer to the official settings page at: <https://monocure3d.com.au/printers/>

Shake resin bottle well before each use

Temperature: 18°C to 35°C

Layer Thickness: 50µm

Base layer Duration: 15-30(sec)

No. Base Layers: 2-4

Normal Layer Exposure: 3(sec)

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CLEANING

For optimal post-printing results, use ResinAway® to remove uncured resin. With enhanced cleaning, non-flammable properties, and a pleasant scent, follow the guidelines for the best finish on 3D dental models.

STEP 1. Ultrasonic cleaner with ResinAway®: 3-5mins

STEP 2. Dry models: Compressed air 20secs*

*Warning: Excess IPA or ResinAway® on models might result in cracking.



POST-CURING

GINGIVA™ resin requires post-curing to reach its optimal mechanical properties.

STEP 3. UV Light Source: 405nm LED Ultraviolet light.

STEP 4. Minimum Post-Curing Duration (m): 5mins

STEP 5. Remove the excess ResinAway® by washing with fresh water.

STEP 6. Place the model in the curing chamber for a minimum of 30 minutes to enhance the materials strength.

STORAGE

To ensure optimal performance and shelf life of Monocure 3D resins, store them in a cool, dark environment, tightly sealed in their original containers, away from heat, direct sunlight, and moisture, while also taking care to prevent the resins from freezing.



GINGIVA™

Gum-Like Dental Resin

Technical Data Sheet Disclaimer

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This Technical Data Sheet (hereinafter referred to as the "TDS") is provided by Monocure 3D Pty Ltd, a company duly incorporated and existing under the laws of Australia (hereinafter referred to as "Monocure 3D" or the "Company"). The information, data, and specifications set forth in this TDS pertain to the Monocure 3D products and materials (hereinafter referred to as the "Products").

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