NOVA3D

Dental 3D Printing for Future

NOVA3D

The Next Generation of Dentistry

What is Nova3D

Founded in 2016 and based in Shenzhen, China, Nova3D is a global leader in 3D printing technology. We specialize in digital light-curing systems and high-performance resins, delivering innovative solutions for dentistry.

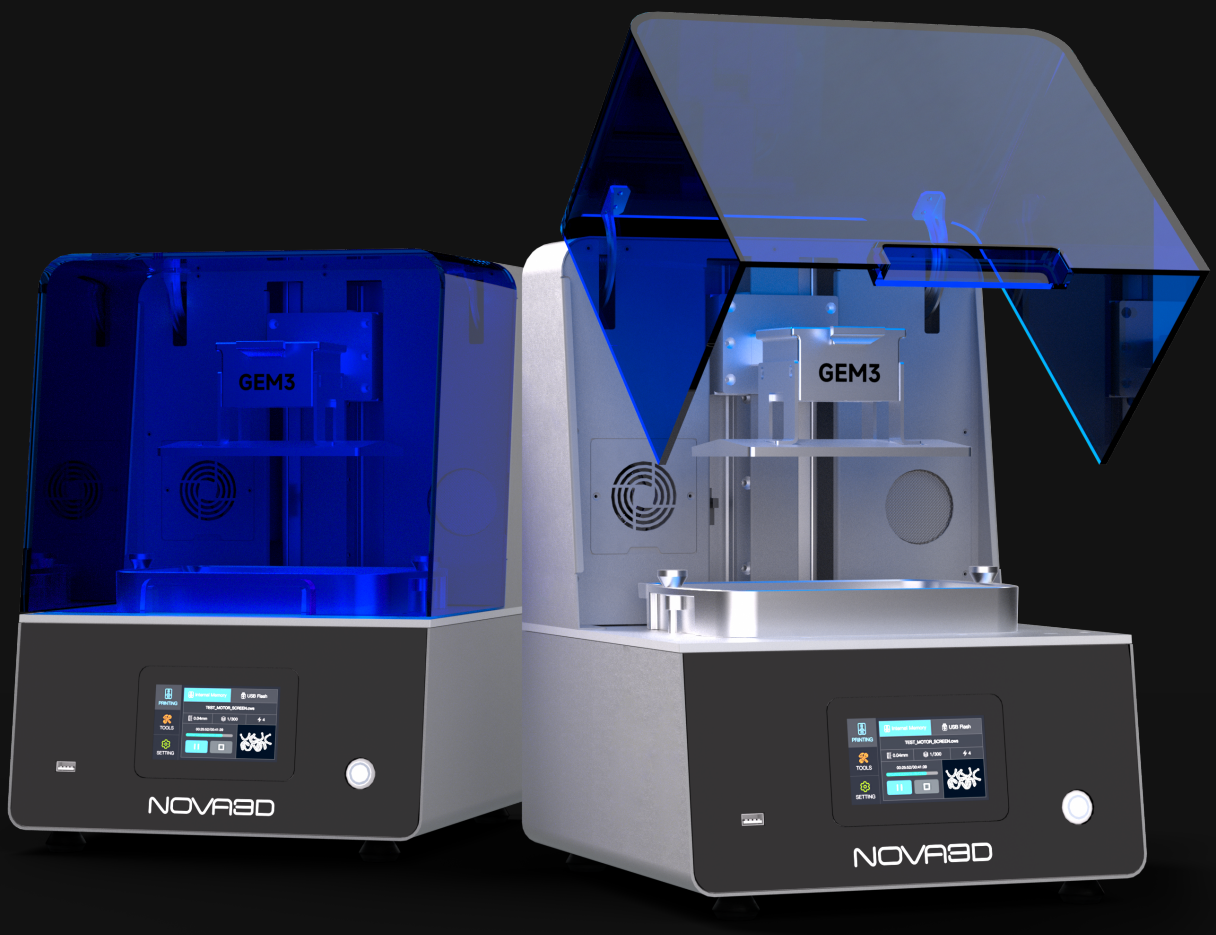
Why Nova3D

Trusted by thousands worldwide, Nova3D is your partner in high-accuracy dental 3D printing. We are committed to providing exceptional customer support and tailored solutions to help you stay ahead. Let's shape the future of dentistry together.

GEM3

Chairside. Easy and Fast

The GEM3 is a compact and lightweight system tailored for dental clinics. Its intuitive workflow and rapid printing capabilities empower chairside operators to effortlessly produce orthodontic, restorative, implant, and aesthetic models for diverse clinical applications.



Supports 20+ Dental Applications:

Fixed Prosthodontics: Restoration models, wax crowns/bridges, temporary crowns/bridges

Removable Prosthodontics: Custom trays, removable dentures, trial dentures

Orthodontics: Orthodontic models, memory models, occlusal splints

Implantology: Implant models, surgical guides, simulated gingiva

User-Friendly Operation: GEM3 features intuitive touchscreen interface, enabling effortless operation even for first–time users. Its compact design seamlessly integrates into clinic workflows.

Rapid Printing: Equipped with an ultra–HD exposure system and smart temperature control, GEM3 completes single–model prints in under 30 minutes, optimizing chairside efficiency and patient throughput.

Versatile Material Compatibility: GEM3 supports 20+ dental resins for restorative, orthodontic, implant, and aesthetic workflows, delivering unmatched clinical flexibility.

GEM3 Specifications

Model	GEM3	Technology	MSLA/UV LCD
Light Source	Light Source		7th–gen COB + Light homogenizer, 4th–gen integrated air–cooling system
	Optical Power Intensity		5000uw/cm²
	UV Wavelength		405nm
Exposure System	Resolution		9072*5120
	Pixel Size		17*17um
	Build Volume		154*87*120mm
Speed	Layer Thickness		20um~200um (20μm increments)
	Printing Speed		70mm/h
Motion System	Lead Screw		Industrial ball screw
	Motor		Industrial Stepper Motor
Power	Input		100–240V ～ 50/60Hz 2A
	Output		24VDC/6.25A
3D Printer	Printer Dimensions		335*315*436.3mm
	Packing Dimensions		418*438*610mm
	Net Weight		15.5KG
	Gross Weight		20.5KG
	Operating Temp		20–30˚C (68–104˚F)
Software	Slicers		NovaMaker, ChituBox Lychee Slicer, Tango Slicer
	File Format		.stl, .obj

GEM3 MAX

Lab-scale. Efficient and Stable

The GEM3 Max is a large-format dental 3D printer designed to advance digital workflows. It combines high precision, a spacious build area, and user-friendly operation.

High-Capacity Printing: One build plate can accommodate 12 orthodontic models, 6 full-arch surgical guides, or 4 full-arch implant models.

Large-Build Efficiency: With an expansive build area 221x118x100mm, GEM3 Max prints 8~12 orthodontic models or 6 full-arch guides per plate, tripling productivity for lab-scale workflows.

Speed Meets Precision: Its ultra-HD exposure system (15120×6230 resolution) delivers ±25μm dimensional accuracy at high speeds, ideal for full range of dental scene requirements.

Industrial Reliability: Industrial-grade ball screws, linear rails, and closed-loop temperature control guarantee 24/7 precision and zero downtime, even under heavy workloads.

GEM3 Max Specifications

Model	GEM3 Max	Technology	MSLA/UV LCD
Light Source	Light Source		7th-gen COB + Light homogenizer, 4th-gen integrated air-cooling system
	Optical Power Intensity		5000uw/cm²
	UV Wavelength		405nm
Exposure System	Resolution		15120*6230
	Pixel Size		14*19um
	Build Volume		221*118*120mm
Speed	Layer Thickness		20um~200um (20μm increments)
	Printing Speed		70mm/h
Motion System	Lead Screw		Industrial ball screw
	Motor		Industrial Stepper Motor
Power	Input		100-240V ～ 50/60Hz 2A
	Output		24VDC/6.25A
3D Printer	Printer Dimensions		358*379*473mm
	Packing Dimensions		502*512*642mm
	Net Weight		24kg
	Gross Weight		34kg
	Operating Temp		20-30°C (68-104°F)
Software	Slicers		NovaMaker, ChituBox Lychee Slicer, Tango Slicer
	File Format		.stl, .obj

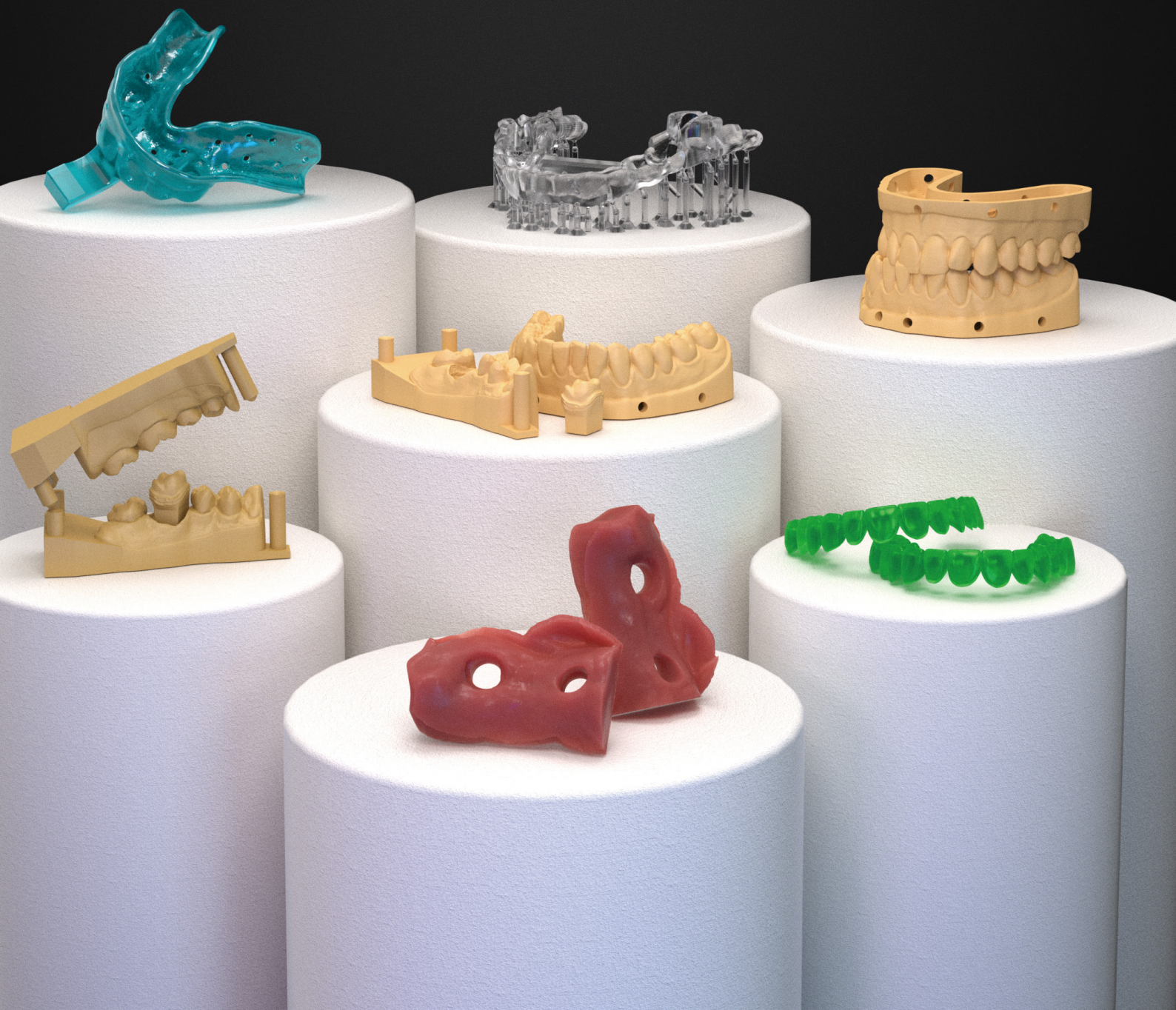
NOVA3D

NOVA3D Dental Resin

Fast Dental Model Eco | Fast Dental Model | High-Precision Dental Model Resin

Washable Dental Model Resin | Surgical Guide Resin | Gingiva Resin

Custom Tray Resin | Dental Castable Resin



Fast Dental Model Eco

NOVA3D Fast Dental Model Eco is capable of printing dental models in less 14 minutes. This material offers fast printing, a smooth surface, high-temperature resistance, superior edge strength, and short post-processing time. Use 160 micron settings for fastest print speeds, or use 100 micron settings for more detailed models.

Applications

- Universal dental models
- Examination models
- Diagnostic models
- Dental models for thermoforming aligners

Properties	Standard	Units	Result
Curing Wavelength	/	nm	405
Tensile Strength	ASTM D638-14	MPa	35-45
Flexural Strength	ASTM C790-15	MPa	60-70
Elongation at Break	ASTM D638-14	%	10-16
Impact strength (Notched)	ASTM D256-10	J/m²	20-30
Colors	Lemon Yellow, Ginkgo Gray		

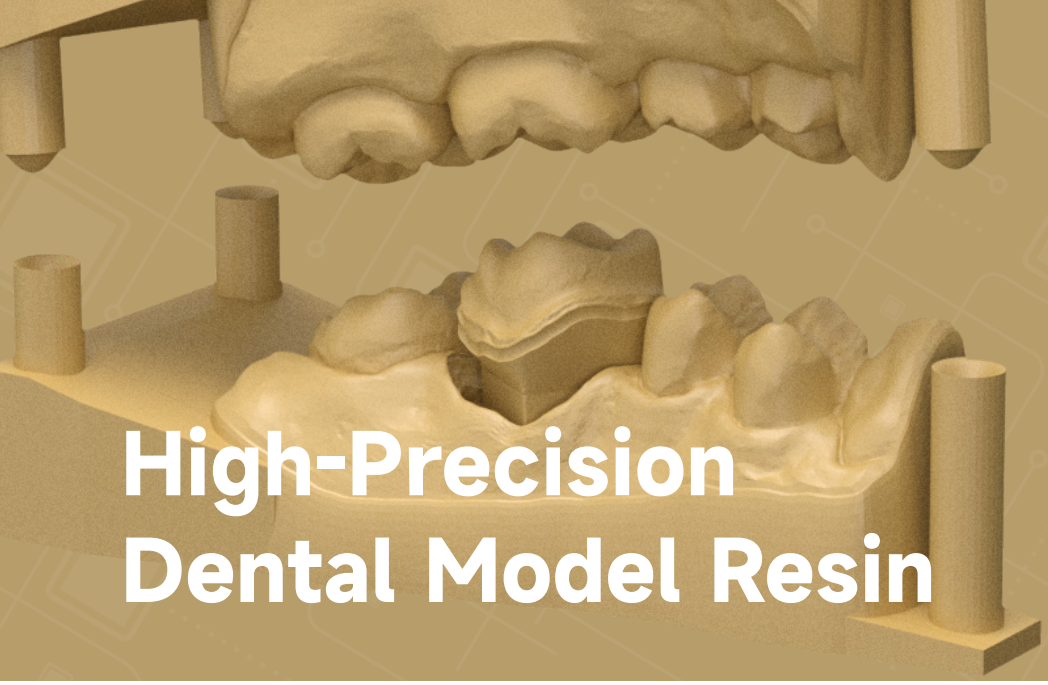
Fast Dental Model

Nova3D Fast Dental Model is designed for rapid printing of dental models. This resin features fast printing with smooth surface, high-temperature resistance, high edge strength, and easy post-processing, making it ideal for high-quality dental models.

Applications

- General dental models
- Examination models
- Diagnostic models
- Dental models for thermoformed orthodontic appliances

Properties	Standard	Units	Result
Curing wavelength	/	nm	405
Tensile strength	ASTM D638-14	MPa	45-55
Flexural strength	ASTM C790-15	MPa	70-80
Elongation at break	ASTM D638-14	%	12-22
Impact strength (Notched)	ASTM D256-10	J/m²	25-35
Colors	Lemon Yellow, Ginkgo Gray		



High-Precision Dental Model Resin

NOVA3D High–Precision Dental Model Resin is engineered for creating dental restoration models. It offers rapid curing, high precision, excellent surface hardness, and outstanding dimensional stability. Its high opacity and smooth matte surface effectively showcase intricate details, producing models with sharp margins.

Applications

- Restoration models
- Removable dental die models
- Implant models
- Crown fit–testing models

Properties	Standard	Units	Result
Curing wavelength	/	nm	405
Tensile strength	ASTM D638–14	MPa	40–50
Flexural strength	ASTM C790–15	MPa	65–80
Elongation at break	ASTM D638–14	%	8–13
Impact strength (Notched)	ASTM D256–10	J/m²	25–30
Colors	Golden Sand Yellow, Obsidian Gray		

Washable Dental Model Resin

NOVA3D Washable Dental Model Resin is designed for rapid printing of general dental models. This material features fast printing, a smooth surface, high-temperature resistance, high edge strength, and simplified post-processing. It is ideal for delivering high-quality models to dentists in a short timeframe. Additionally, its hydrophilic properties allow direct water-based cleaning, effectively reducing organic compound volatilization and enhancing production safety.

Applications

- General dental models
- Examination models
- Diagnostic models
- Dental models for thermoformed orthodontic appliances

Properties	Standard	Units	Result
Curing wavelength	/	nm	405
Tensile strength	ASTM D638-14	MPa	45-55
Flexural strength	ASTM C790-15	MPa	70-80
Elongation at break	ASTM D638-14	%	12-22
Impact strength (Notched)	ASTM D256-10	J/m²	25-35
Colors	Lemon Yellow, Ginkgo Gray		

Surgical Guide Resin

NOVA3D Surgical Guide Resin is a biocompatible, light-curing 3D printing resin designed for producing dental implant surgical guides and similar applications. Post-curing ensures compliance with stringent requirements for autoclaving, solvent resistance, and implant system compatibility, guaranteeing precision, quality, and performance aligned with dental surgical standards.

Applications

- Surgical guides
- Drill guides
- Drilling templates
- Dimensional templates

Properties	Standard	Units	Result
Curing wavelength	/	nm	405
Flexural Strength	ASTM D790	MPa	>95
Flexural Modulus	ASTM D790	MPa	>1650
Elongation at break	ASTM D638	%	8–13
Colors	Transparent		

Notes:

– Disinfection Compatibility: Sterilize with ⩾70% medical alcohol for 5 minutes.

– Autoclave Compatibility: 135°C for 20 minutes or 120°C for 30 minutes.

– Biocompliance: Meets ISO 10993-5:2009. Biological Evaluation of Medical Devices – Part 5: Tests for In Vitro Cytotoxicity. (Compliance report: WT232420)

Gingiva Resin

NOVA3D Simulated Gingiva Resin is a photosensitive resin specifically designed for 3D printing flexible gingiva. It features exceptional flexibility, tear resistance, and dimensional stability, accurately mimicking the appearance and texture of natural gum tissue. The material resists shrinkage and aging, maintains flexibility over extended periods, and is odor–free.

Applications

- Flexible simulated gingiva
- Soft tissue for implant models

Properties	Standard	Units	Result
Curing wavelength	/	nm	405
Hardness	ASTM D2240	Shore A	50
Elongation at break	ASTM D638–14	%	120
Tensile Strength	ASTM D638–14	MPa	20–30
Colors	Light Red		

Custom Tray Resin

NOVA3D Custom Tray Resin is designed for 3D printing trays for implants, dentures, crowns, bridges, and complex cases. It enables rapid printing at 120μm layer thickness, delivering consistent and accurate trays for high-quality dental workflows. Post-curing ensures compliance with industry biocompatibility standards.

Applications

- Custom functional trays

Notes:

- Disinfection Compatibility: Sterilize with ⩾70% medical alcohol for 5 minutes.
- Biocompliance: Meets ISO 10993-5:2009. Biological Evaluation of Medical Devices Part 5: Tests for In Vitro Cytotoxicity. (Compliance report: WT232420)

Properties	Standard	Units	Result
Curing wavelength	/	nm	405
Tensile Strength	ASTM D638	MPa	68
Flexural Strength	ASTM D790	MPa	100
Flexural Modulus	ASTM D790	MPa	2000
Elongation at break	ASTM D638-14	%	3
Hardness	ASTM D2240	Shore A	80
Colors	Transparent Blue		

Dental Castable Resin

High-precision material for printing castable crowns, bridges, and removable denture models.
NOVA3D Dental Castable Resin is engineered for creating dental casting models. It offers excellent castability, precise and sealed margins, and a high wax content ratio, ensuring residue-free burnout for reliable casting results. Printed models are suitable for metal casting (crowns, bridges, removable dentures, and frameworks) as well as all-ceramic crowns, veneers, and inlays.

Applications

- Crown models
- Bridge models
- Dental inlays
- Removable denture models
- All-ceramic crowns
- All-ceramic veneers

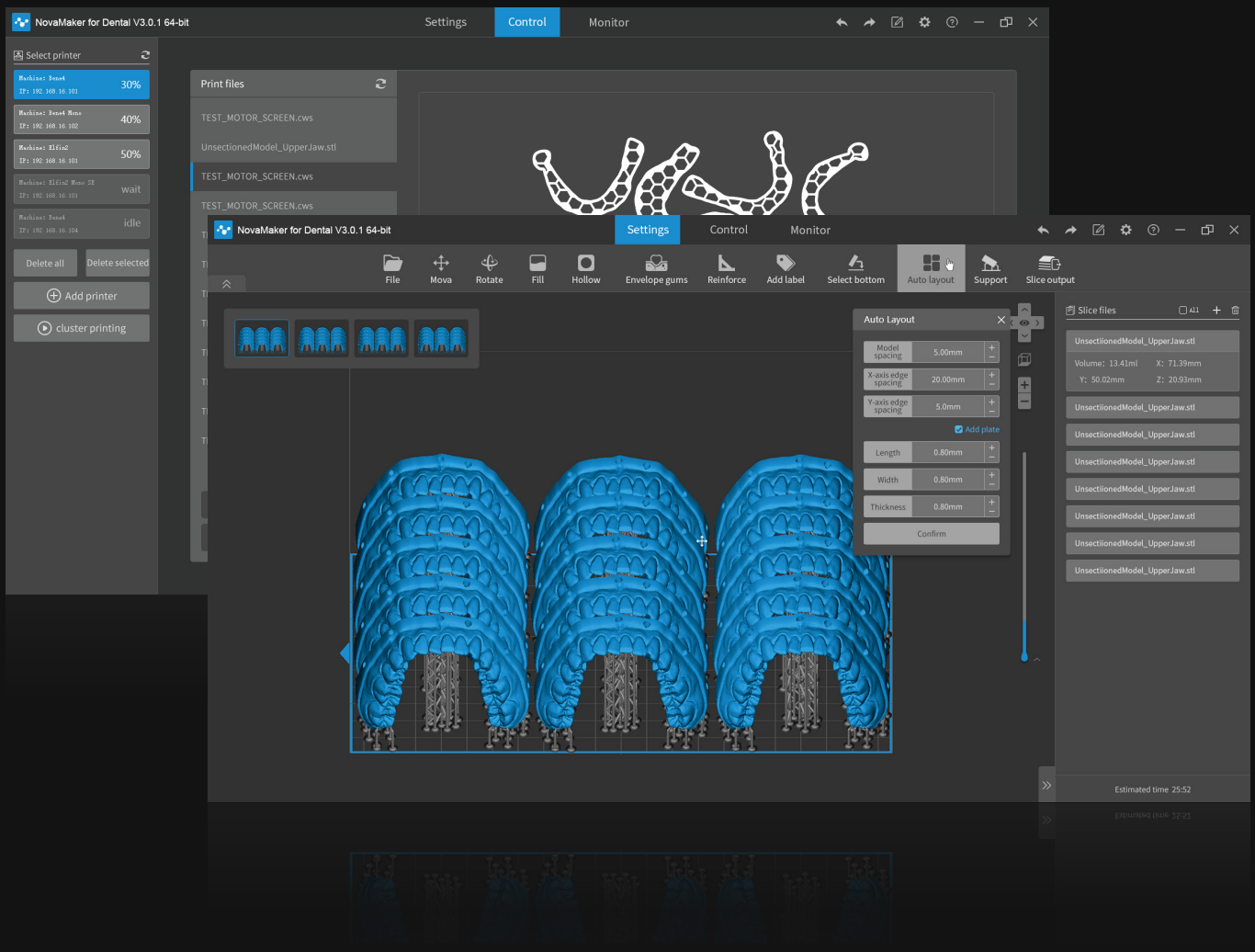
Properties	Standard	Units	Result
Curing wavelength	/	nm	405
Tensile Strength	ASTM D638-14	MPa	25-30
Flexural Strength	ASTM C790-15	MPa	35-40
Elongation at break	ASTM D638-14	%	8-10
Colors	Emerald Green		

NovaMaker for Dental

New experience for digital dentistry

Covering 90% of dental scenarios, pre-processing is completed in only 3 steps

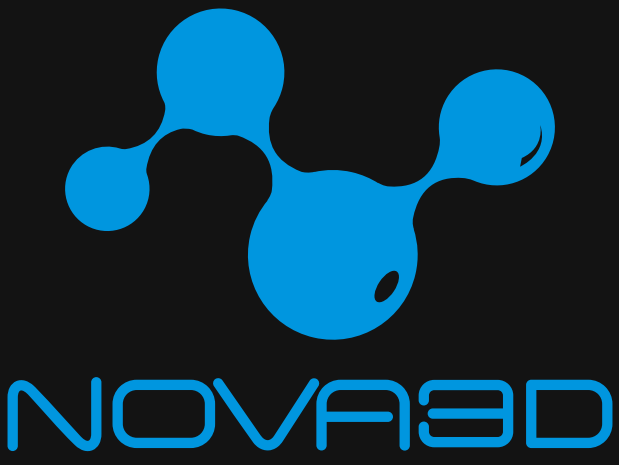
Import > Fully Automatic Processing > Finish



Auto hollowing and filling: Hollow out the inside of dental model and fill to reduce material consumption

Auto Layout: Automatic recognition of the file name of the model enables different patients' models to be automatically and intelligently placed. Dental technicians can save a lot of time on manual adjustment and orientation.

Remote Control: Remote wireless transmission of slice files and monitor the working status at a glance



Jinshunyuan Factory, Furong Road
Tantou Community, Songgang Street
Bao'an District, Shenzhen

www.nova3dp.com
sales2@nova3dp.com