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riton

DENTAL 3D PRINTING

Light Shapes, Resin Defines.



RXDent-L Series 3D Printers

The RXDent-L Series features high-efficiency, cost-effective LCD 3D printers developed by Riton specifically for dental applications. Designed for high-volume production in small- to mid-sized dental laboratories, the series is widely used for dental model fabrication.



Model	RXDent-L230		RXDent-L230SE
Molding Size (X × Y × Z)	228 × 128 × 150 mm		
Resolution	7680 × 4320		
Pixel Size	30 μm		
Projection Technology	LCD		
Wavelength	385 nm		
Printing Speed	1-8 s/layer		1-10 s/layer
Layer Thickness Setting	0.01-0.2 mm		0.02-0.2 mm
Touch Screen	5" HD Multi-Touch Display with Wide Viewing Angle		
Rated Voltage	100-240 V a.c 50/60 Hz		
Printing Mode	Wireless/USB		
Supported Languages	Multilingual		
Rated Power	300 W		150 W
Equipment Dimensions (W × D × H)	370 × 370 × 530 mm		370 × 258 × 515 mm
Equipment Weight	30 kg		19 kg

RXDent-L Series 3D Printers

The RXDent-L130 Ultra is a high-precision desktop LCD 3D printer designed for chairside immediate restorations, digital clinics, and small dental laboratories. Equipped with a 34 μm pixel size and a dental-specific light source system, it meets digital printing needs across scenarios such as simple fixed restorations, removable restorations, and surgical guides, helping clinics establish an efficient, in-house digital production workflow.



Model	RXDent-L130 Ultra
Build Volume (Large Vat) (X × Y × Z)	130 × 80 × 110 mm
Build Volume (Small Vat) (X × Y × Z)	60 × 60 × 110 mm
Resolution	3840 × 2400
Pixel Size	34 μm
Projection Technology	LCD
Wavelength	385 nm
Printing Speed	1-8 s/layer
Layer Thickness	0.01-0.2 mm
Touchscreen	5" HD Multi-Touch Display with Wide Viewing Angle
Rated Voltage	100-240 V a.c 50/60 Hz
Printing Method	USB / Wireless
Supported Languages	Multilingual
Rated Power	300 W
Machine Dimensions (W × D × H)	320 × 420 × 500 mm
Machine Weight	20 kg

RXDent-D130 3D Printer

The RXDent-D130 features high-stability, high-precision DLP 3D printers purpose-built for dental applications. Designed for small dental laboratories and clinics, the series delivers reliable, high-quality printing for a wide range of applications, including crowns and bridges, implant surgical guides, occlusal splints, temporary crowns, and denture bases. It is particularly well suited to high-viscosity dental resins that require superior surface quality and high optical transparency.



Model	RXDent-D130
Build Volume (Large Vat) (X × Y × Z)	130 × 70 × 120 mm
Build Volume (Small Vat) (X × Y × Z)	60 × 60 × 120 mm
Resolution	1920 × 1080
Pixel Size	30 μm
Projection Technology	DLP
Wavelength	385 nm
Printing Speed	1-6 s/layer
Layer Thickness	0.01-0.2 mm
Touchscreen	7" HD Multi-Touch Display with Wide Viewing Angle
Rated Voltage	100-240 V 50/60 Hz
Printing Method	USB / Wireless
Supported Languages	Multilingual
Rated Power	300 W
Machine Dimensions (W × D × H)	320 × 420 × 500 mm
Machine Weight	20 kg

Dental Model / Model V1.0

Model V1.0 is a dental-specific photopolymer resin for fabricating dental models. Printed models feature high surface hardness and excellent detail reproduction. Low shrinkage helps maintain dimensional stability over long-term storage.

Color: Yellow/Gray



Excellent
Dimensional Stability



Good
Surface Hardness



Outstanding
Surface Quality



Fast
Molding Speed



Easy
To Clean

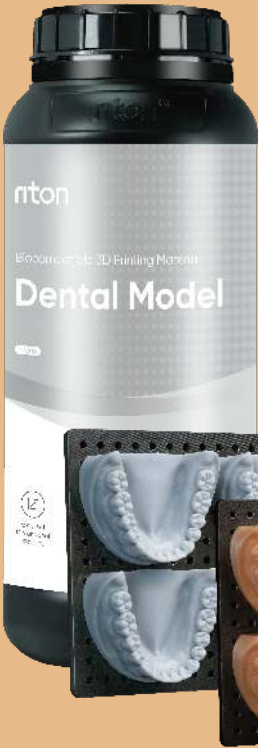
Property

Unit

Standard

Value

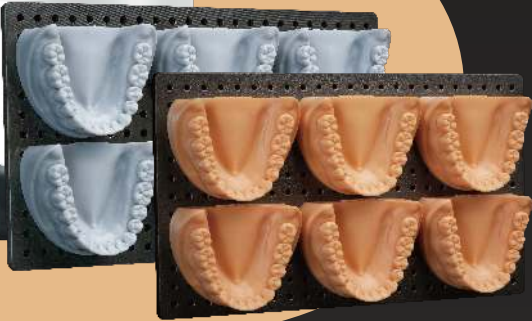
Flexural Strength	MPa	ASTM D790	70-80
Flexural Modulus	MPa	ASTM D790	1550-1650
Notched Impact Strength	J/m	ASTM D256	26-28
Water Absorption	%	ASTM D570	≤1.2
Hardness	Shore D	ASTM D2240	≥82
Viscosity	mPa.s	ASTM D2393	150-800



Dental Model / Model S1.0

Model S1.0 is a dental-specific photopolymer resin for high-volume production of dental models. Featuring heat resistance and fast printing speed, it meets requirements for orthodontic thermoforming models and opposing models. It balances cost-efficiency, high throughput and functional performance.

Colors: Yellow/Gray



Fast
Molding Speed



Easy
To Clean



Mass
Production Capability



High-Temperature
Resistance



Excellent
Cost-Effectiveness

Property	Unit	Standard	Value
Flexural Strength	MPa	ASTM D790	60-70
Flexural Modulus	MPa	ASTM D790	1450-1550
Notched Impact Strength	J/m	ASTM D256	20-22
Water Absorption	%	ASTM D570	≤1.2
Hardness	Shore D	ASTM D2240	≥70
Viscosity	mPa.s	ASTM D2393	150-800

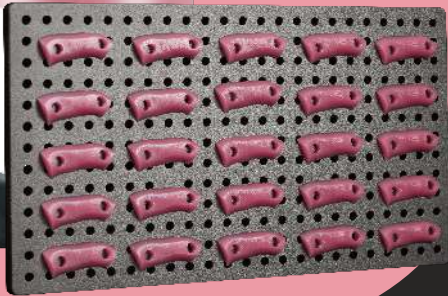
NMPA FDA MDR|CE



Gingiva Mask / Model G2.0

Model G2.0 is a dedicated dental photopolymer resin for fabricating anatomically realistic gingiva models. Printed components feature aging resistance, excellent elasticity and tear resistance with low odor, retaining flexibility even during long-term storage.

Color: Pink



High Flexibility



Low Irritation



Easy To Clean



Low Viscosity

Property	Unit	Standard	Value
Elongation at Break	%	ASTM D638	145
Tear Strength	N/mm	ASTM D790	5.8-6.3
Hardness	Shore A	ASTM D2240	30
Viscosity	mPa.s	ASTM D2393	600-1100

NMPA FDA MDR|CE



Surgical Guide / Model SG1.0

Model SG1.0 is a dental-grade photopolymer resin for manufacturing implant surgical guides. The printed parts are transparent with good resistance to yellowing, low odour. It can be polished and offers stable dimensions and sound mechanical properties, meeting clinical requirements for water absorption and mechanical performance.

Color: Transparent



Icon: Three interconnected circles representing mechanical properties.

Excellent Mechanical Properties

Icon: A leaf-like shape representing biocompatibility.

Biocompatibility

Icon: A thermometer with a flame, representing high-temperature sterilization.

High-Temperature Sterilization

Icon: A circular arrow representing fast molding speed.

Fast Molding Speed

Property	Unit	Standard	Value
Flexural Strength	MPa	ASTM D790	50-60
Flexural Modulus	MPa	ASTM D790	1260-1300
Notched Impact Strength	J/m	ASTM D256	20-25
Water Absorption	%	ASTM D570	≤1.2
Hardness	Shore D	ASTM D2240	≥80
Viscosity	mPa.s	ASTM D2393	150-300



Casting Wax Resin / Model C1.0

Model C1.0 is a dental photopolymer resin for producing casting patterns. Use standard phosphate-based investment material for investing. It supports metal-casting workflows for removable frame-works and inner copings, as well as ceramic-press workflows for full-ceramic crowns, veneers and inlays.

Color: Green



Icon: A leaf-like shape with a drop, representing low ash residue.

Low Ash Residue

Icon: A grid pattern representing low thermal expansion.

Low Thermal Expansion

Icon: A magnifying glass over a circle, representing high-fidelity detail reproduction.

High-Fidelity Detail Reproduction

Property	Unit	Standard	Value
Flexural Strength	MPa	ASTM D790	40-50
Flexural Modulus	MPa	ASTM D790	1000-1100
Residual Ash Content	%	/	< 0.1
Insertion Temperature	°C	/	1h@850°C
Viscosity	mPa.s	ASTM D2393	150-250



Try-in / Model TN1.0

Model TN1.0 is a dental-specific photopolymer resin for manufacturing try-in denture models and trial prostheses. It supports evaluation of fit, marginal adaptation, and occlusion during the try-in stage, enabling efficient occlusal adjustment. Suitable for multiple occlusal conditions, it delivers good wear resistance, corrosion resistance and simple cleaning.

Color: A2



High Mechanical Strength



Dimensional Stability



Biocompatibility



Excellent Fit

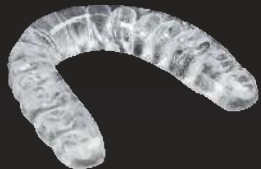
Property	Unit	Standard	Value
Flexural Strength	MPa	ASTM D790	72-80
Flexural Modulus	MPa	ASTM D790	1800-1900
Notched Impact Strength	J/m	ASTM D256	24-27
Water Absorption	%	ASTM D570	≤1.3
Hardness	Shore A	ASTM D2240	≥82
Viscosity	mPa.s	ASTM D2393	300-400



Splint / Model HS1.0

Model HS1.0 is a dental photopolymer resin for rigid occlusal splints and night guards. It provides appropriate strength and wear resistance for splint applications.

Color: Transparent



High Mechanical Strength



Superior Wear Resistance



High Optical Clarity



Biocompatibility

Property	Unit	Standard	Value
Flexural Strength	MPa	ASTM D790	80-90
Flexural Modulus	MPa	ASTM D790	1900-2000
Notched Impact Strength	J/m	ASTM D256	20-22
Water Absorption	%	ASTM D570	≤1.3
Hardness	Shore D	ASTM D2240	≥82
Viscosity	mPa.s	ASTM D2393	420-510



Splint / Model SS1.0

Model SS1.0 is a photopolymer resin for fabricating flexible occlusal splints and night guards. Its tailored mechanical properties and thermally activated shape-memory function enable softening at approximately 45°C for easy insertion and removal.

Color: Transparent



Thermally Activated Shape Memory



High Wear Resistance



Excellent Fit



Biocompatibility

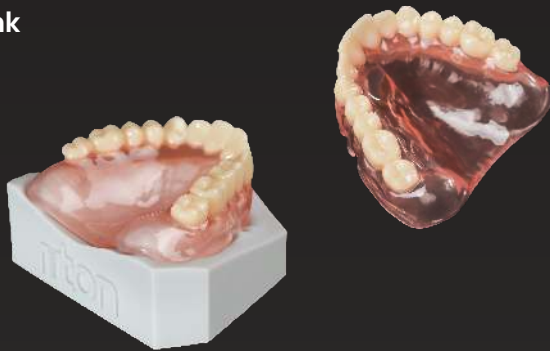
Property	Unit	Standard	Value
Flexural Strength	MPa	ASTM D790	30-40
Flexural Modulus	MPa	ASTM D790	900-1000
Notched Impact Strength	J/m	ASTM D256	28-30
Water Absorption	%	ASTM D570	≤1.3
Hardness	Shore D	ASTM D2240	≥40
Viscosity	mPa.s	ASTM D2393	290-370



Denture Base / Model D1.0

Model D1.0 is a dental photopolymer resin for fabricating complete denture bases. The printed bases are biocompatible and odour-free, boasting excellent tensile strength, flexural performance and wear resistance. Its mechanical properties and water absorption meet application requirements. Simple polishing delivers natural high-gloss gingival finish.

Color: Pink



Excellent Mechanical Performance



Biocompatibility



Excellent Retention



Excellent Dimensional Stability

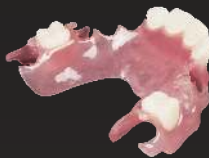
Property	Unit	Standard	Value
Flexural Strength	MPa	ASTM D790	66-78
Flexural Modulus	MPa	ASTM D790	2000-2200
Notched Impact Strength	J/m	ASTM D256	28-32
Water Absorption	%	ASTM D570	≤1.3
Hardness	Shore D	ASTM D2240	≥81
Viscosity	mPa.s	ASTM D2393	1000-1800



Denture Base / Model F1.0

Model F1.0 is a dental-specific photopolymer resin for fabricating flexible denture bases. With a low-odor formulation, it offers high resilience, flexural endurance, and wear resistance. Its mechanical properties and water absorption characteristics meet application requirements.

Color: Transparent Pink



Excellent Resilience



High Fatigue Strength



Excellent Fit



Natural-Like Shade

Property	Unit	Standard	Value
Flexural Strength	MPa	ASTM D790	20-28
Flexural Modulus	MPa	ASTM D790	630-740
Notched Impact Strength	J/m	ASTM D256	35-40
Water Absorption	%	ASTM D570	≤1.3
Hardness	Shore D	ASTM D2240	≥40
Viscosity	mPa.s	ASTM D2393	2000-3000



Thermal Post-Curing:
Required: 100°C / 1 h

Crown / Denture Teeth / Model T1.0

Model T1.0 is a dental photopolymer resin for fabricating immediate crowns, bridges and removable dental prostheses. Formulated with up to 15% nano-ceramic filler, it offers mild radiopacity. Printed restorations are biocompatible and odour-free, with excellent tensile strength and toughness. Its mechanical properties and water absorption meet application requirements, delivering natural tooth-like texture. It can be bonded to denture base resins for one-piece restoration fabrication.

Colors: A1, A2, A3, A3.5, B1, B2, B3, BL1



Excellent
Mechanical Properties



Excellent
Cost-Effectiveness



Fast Molding Speed



Easy to Clean

Property	Unit	Standard	Value
Flexural Strength	MPa	ASTM D790	100-120
Flexural Modulus	MPa	ASTM D790	2650-3050
Notched Impact Strength	J/m	ASTM D256	28-32
Water Absorption	%	ASTM D570	≤1.3
Hardness	Shore D	ASTM D2240	≥85
Viscosity	mPa.s	ASTM D2393	2000-3000

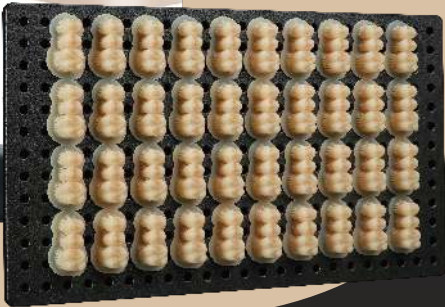


Thermal Post-Curing:
Recommended: 100°C / 1 h

Crown Bridge / Model T2.0

Model T2.0 is a dental photopolymer resin for fabricating onlays, single crowns and short-span bridges. Formulated with up to 55% nano-ceramic filler, it delivers excellent radiopacity. It balances superior structural strength and wear resistance, with reliable load-bearing and fracture resistance under occlusal force. The biocompatible base material has no pungent odour. Its key mechanical strength, water absorption and biocompatibility meet clinical requirements. After polishing, printed crowns and bridges replicate the translucent texture of natural teeth, offering outstanding aesthetic performance and good stain resistance.

Colors: A1, A2, A3, A3.5, B1, B2, B3, BL1



High
Hardness & Strength



Excellent
Stain Resistance

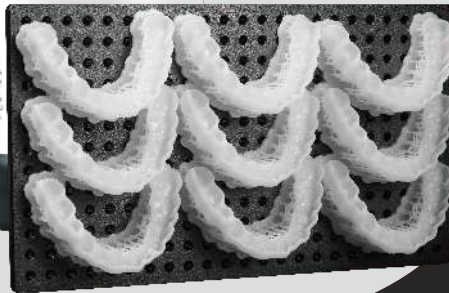


Biocompatibility



X-Ray
Radiopacity

Property	Unit	Standard	Value
Flexural Strength	MPa	ASTM D790	130-160
Flexural Modulus	MPa	ASTM D790	3600-4200
Notched Impact Strength	J/m	ASTM D256	20-24
Water Absorption	%	ASTM D570	≤1.3
Hardness	Shore D	ASTM D2240	≥85
Viscosity	mPa.s	ASTM D2393	3000-4000



Whitening Dental Braces / Model WD1.0

Model WD 1.0 is a dental photopolymer resin for disposable braces. Safe and low-odor, it delivers excellent tensile, flexural and wear resistance. Its mechanical performance and water absorption comply with application needs. Simple polishing yields natural tooth-like texture and shade for temporary wear.

Color: A1



Excellent Resilience



High Fatigue Strength

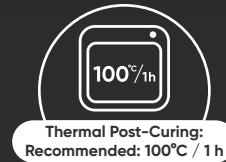


Excellent Fit



Natural-Like Shade

Property	Unit	Standard	Value
Flexural Strength	MPa	ASTM D790	20-25
Flexural Modulus	MPa	ASTM D790	500-600
Notched Impact Strength	J/m	ASTM D256	/
Water Absorption	%	ASTM D570	≤1.3
Hardness	Shore D	ASTM D2240	/
Viscosity	mPa.s	ASTM D2393	2500-3000





Glossy Coat Soft / Model GCS1.0

Formulated for flexible printed dental restorations such as crowns and flexible dentures. It enhances surface gloss and aesthetic performance while delivering stain resistance with biocompatibility.

- **Rapid Gloss Enhancement:**
Reduces tedious manual polishing steps, delivering a high-gloss finish quickly and efficiently.
- **Dynamic Flexibility:**
Flexes naturally under masticatory forces, helping prevent surface cracking and peeling.
- **Stain-Resistant Protection:**
Seals micro-porosity to resist discoloration caused by plaque accumulation and oral fluids.



Glossy Coat Hard / Model GCH1.0

Developed for rigid 3D-printed dental restorations such as crowns, complete dentures and fixed bridges. Boosts surface gloss and aesthetics with anti-stain performance and biocompatibility.

- **Rapid Gloss Enhancement**
Reduces tedious manual polishing steps, delivering a high-gloss finish quickly and efficiently.
- **Structural Stability:**
Maintains structural integrity under occlusal forces, resisting framework fracture, deformation, and collapse.
- **Stain-Resistant Protection:**
Seals micro-porosity to resist discoloration caused by plaque accumulation and oral fluids.



Glossy Coat DA / Model GCD1.0

Designed for bonding photopolymer-printed crowns and denture bases, suitable for both partial and full dentures, providing strong, secure adhesion with rapid curing.

- **Superior Integration:**
Excellent adhesion and corrosion resistance ensure durable, long-lasting bonds, significantly reducing the risk of tooth debonding.
- **Precise Seating:**
Low-viscosity, highly flowable formula enables fine micromechanical interlocking for close, secure bonding.



Glossy Coat GUM / Model GCG1.0

A dental-specific photopolymer material designed for soft-tissue simulation in fixed bridge applications. It cures rapidly and adapts closely to restoration margins, helping prevent dislodgement.

Colors: P, DP, LP

- **Rich, Lifelike Coloration**
- **Simple to Handle**
- **High Adaptation**
- **Biocompatibility**