



DENTAL 3D PRINTING RESIN

Specialized In High Performance Ultraprint
Dental Series



R&D CAPABILITIES

There are three PhDs and fifteen masters in Rayform, we are cooperating with many domestic universities to do tremendous amount of research and development. We have created many kinds of materials formulated for dentistry, they are compatible with most of the famous mainstream LCD&DLP printers in the world. OEM/ODM is warmly welcomed.



WIN-WIN COOPERATION

We adhere to the principle of "Honesty, win-win cooperation, Diligence and Innovation", Rayform will continue to be committed to providing high-quality& high-performance dental materials together with high efficiency & advanced digital 3D solutions to dentists and patients. You deserve to receive "High cost effective & Exceptional quality products & Excellent service" from Rayform, which support you to become more and more brilliant in dental Industry.



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Patent Certificates

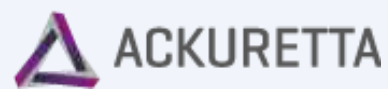
50+invention patents, utility model and design patent.
40+ invention patents, utility model and design patents to be authorized.



VLOGUE

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COMPATIBLE WITH



and the other open system printers

HIGH PRECISION
IMPLANT MODEL
RESIN

Product Features

- Dimensional stability
- High strength
- Good hardness
- High precision
- MMA Free
- Excellent detail resolution



Color:	Grey
Specification:	1kg/bottle
Applicable equipment:	High-precision DLP printer and LCD printer

The special resin material for dentistry is applicable to 3D printing of dental models. This material features fast forming speed, high forming precision and ultra-high surface hardness. Its high degree of detail reproduction. It can still maintain good precision during the storage process. We have tested the precision after storage for more than half a month, and it remains excellent.

PRODUCT PERFORMANCE

Parameter	Standard	Unit	Result
Shore	ASTM D2240	Shore D	86
Flexural strength	ASTM D790	MPa	83
Flexural modulus	ASTM D790	MPa	1713
Elongation	ASTM D638	%	18.1
Water sorption	ASTM D570	%	0.4-0.65



HIGH TEMPERATURE RESISTANT DENTAL MODEL RESIN

Product Features

- Fast forming rate
- Ultra-high surface hardness
- Superior toughness and force retention
- High-temperature resistance
- High precision
- High building speed



Color:	Grey
Specification:	1kg/bottle 5kg/bottle
Applicable equipment:	Regular DLP printer and LCD printer



The special resin material for dentistry is applicable to 3D printing of high-temperature dental models. This material features fast forming speed, high forming precision and ultra-high surface hardness. Its high degree of detail reproduction and good high-temperature resistance can meet the requirements for the production of high-temperature dental models. The stable material structure can withstand the high-pressure and high-temperature impacts of hot-pressing molding instruments.

PRODUCT PERFORMANCE

Parameter	Standard	Unit	Result
Shore	ASTM D2240	Shore D	86
Flexural strength	ASTM D790	MPa	69.6
Flexural modulus	ASTM D790	MPa	1713
Elongation	ASTM D638	%	17.2
Water sorption	ASTM D570	%	0.45-0.6

WATER WASHABLE DENTAL MODEL RESIN

Product Features

- Fast forming rate
- Ultra-high surface hardness
- High precision
- High-temperature resistance
- High building speed
- Biocompatible



Color:	Milky white
Specification:	1kg/bottle 5kg/bottle
Applicable equipment:	Regular DLP printer and LCD printer



This model resin with low viscosity and high precision is applied to orthodontic correction and can be cleaned with alcohol or water. It has high dimensional stability and can be placed for more than 15 days without deterioration in precision.

PRODUCT PERFORMANCE

Parameter	Standard	Unit	Result
Shore	ASTM D2240	Shore D	85
Flexural strength	ASTM D790	MPa	55.4
Flexural modulus	ASTM D790	MPa	1500
Elongation	ASTM D638	%	14
Water sorption	ASTM D570	%	0.7

SURGICAL GUIDE RESIN

Product Features

- Dimensional stability
- Low material consumption
- Autoclaving verified
- High mechanical stability
- Vivid detail restoration
- High building speed
- High yield rate
- High transparency
- Biocompatible
- MMA Free



Color:	Transparent
Specification:	1kg/bottle
Applicable equipment:	Regular DLP printer and LCD printer

Special material for dental guides, which is slightly blue in transparency, possesses good detail resolution, good assembly dimensional accuracy and long-term stability.

PRODUCT PERFORMANCE

Parameter	Standard	Unit	Result
Shore	ASTM D2240	Shore D	84
Flexural strength	ASTM D790	MPa	65.6
Flexural modulus	ASTM D790	MPa	1700
Notch impact strength	ASTM D256	J/m	45
Elongation	ASTM D638	%	13.2
Water sorption	ASTM D570	%	0.45-0.56

WAX CASTING RESIN

Product Features

- Low ash residue
- Clean burn-out
- Dimensional stability
- Vivid detail restoration
- High precision casting
- Easy to mold



Color:	Green
Specification:	1kg/bottle
Applicable equipment:	Regular DLP printer and LCD printer

Dental casting resin has excellent performance in presenting molding details, and the ash residue of printed parts remains at the ppm level after combustion.

PRODUCT PERFORMANCE

Parameter	Standard	Unit	Result
Shore	ASTM D2240	Shore D	90D
Heating temperature	/	/	850℃-1000℃
Flexural strength	ASTM D790	MPa	90
Residual ash	/	/	< 0.1

GINGIVA MASK RESIN

Product Features

- Soft
- Fast Mold
- Odorless
- High precision
- High building speed
- Good assembly performance of combinations



Color:	Pink
Specification:	1kg/bottle
Applicable equipment:	Regular DLP printer and LCD printer

Excellent molding stability and resilience, and can be maintained for a long time. It has low shrinkage and is odorless.

PRODUCT PERFORMANCE

Parameter	Standard	Unit	Result
Shore	ASTM D2240	Shore A	40A
Tensile strength	ASTM D790	MPa	31.4
Elongation	ASTM D638	%	172
Water sorption	ASTM D570	%	0.45-0.56

INVISIBLE DENTURE BASE RESIN (FLEXIBLE DENTURE)

Product Features

- High precision
- High building speed
- Good stability
- Biocompatible
- Good polishability
- Excellent flexibility



Color:	Pink
Specification:	1kg/bottle
Applicable equipment:	Regular DLP printer and LCD printer

The partial denture base material is a biocompatible light-curing 3D printing resin, which is used to produce removable partial denture base (in combination with denture materials). The printed products not only possess a certain level of hardness and strength but also have relatively good toughness, making them suitable for denture base with relatively high toughness requirements, such as thin-walled denture base, half-denture base, and invisible denture base.

PRODUCT PERFORMANCE

Parameter	Standard	Unit	Result
Shore	ASTM D2240	Shore D	75
Flexural strength	ASTM D790	MPa	95
Flexural modulus	ASTM D790	MPa	1000
Elongation	ASTM D638	%	30
Water sorption	ASTM D570	%	0.45-0.51

TEMP C&B RESIN

Product Features

- Natural tone
- High precision
- High building speed
- High tensile and flexural strength
- High abrasion resistance
- Biocompatible
- Long-term storage



ISO13485



on progress



Medical Product
Class IIa on progress

Color:	A1、A2
Specification:	1kg/bottle
Applicable equipment:	Regular DLP printer and LCD printer

The temporary dental material is a biocompatible light-curing 3D printing resin, which is used for producing removable dentures (in combination with denture base materials) as well as crowns and bridges. The products after printing possess the characteristics of high hardness, high strength and dimensional stability, and its production process is quite reliable.

PRODUCT PERFORMANCE

Parameter	Standard	Unit	Result
Shore	ASTM D2240	Shore D	90
Flexural strength	ASTM D790	MPa	110
Flexural modulus	ASTM D790	MPa	2100
Notch impact strength	ASTM D256	J/m	45
Elongation	ASTM D638	%	9
Water sorption	ASTM D570	%	0.4

DENTURE BASE RESIN

Product Features

- Natural tone
- High precision
- High building speed
- High tensile and flexural strength
- High abrasion resistance
- Biocompatible
- Long-term storage



ISO13485



on progress



Medical Product
Class IIa on progress

Color:	Pink
Specification:	1kg/bottle
Applicable equipment:	Regular DLP printer and LCD printer

The denture base material is a biocompatible light-curing 3D printing resin, which is mainly used for producing removable denture base (in combination with denture material). The products after printing possess the characteristics of high hardness and high strength, and its production process is quite reliable.

PRODUCT PERFORMANCE

Parameter	Standard	Unit	Result
Shore	ASTM D2240	Shore D	88D
Flexural strength	ASTM D790	MPa	110
Flexural modulus	ASTM D790	MPa	2000
Notch impact strength	ASTM D256	J/m	45
Elongation	ASTM D638	%	10
Water sorption	ASTM D570	%	0.4

PERMANENT CROWNS RESIN

Product Features

- Good hardness
- High precision
- Long-term stability
- Biocompatible
- Good polishing property
- Good combination and assembly



Color:	A2
Specification:	1kg/bottle
Applicable equipment:	High-precision DLP printer and LCD printer



Biocompatible photocurable 3D printing resin is used to produce removable permanent crowns (in combination with denture base material). The printed products are characterized by high hardness and strength. Their production replaces traditional dentures. The resin has low shrinkage. It can achieve high mechanical strength and flexural strength, exhibits excellent dimensional stability, and is odorless and tasteless.

PRODUCT PERFORMANCE

Parameter	Standard	Unit	Result
Shore	ASTM D2240	Shore D	94D
Flexural strength	ASTM D790	MPa	150
Flexural modulus	ASTM D790	MPa	3500
Elongation	ASTM D638	%	6
Water sorption	ASTM D570	%	0.4

HARD SPLINT RESIN

Product Features

- High precision
- High toughness
- Dimensional stability
- Biocompatible
- High abrasion resistance
- Easy to clean



Color:	Semi-clear
Specification:	1kg/bottle
Applicable equipment:	High-precision DLP printer and LCD printer



Hard Splint Resin is a biocompatible material used for producing bite plates, occlusal splints, and retainers. It can make products with high accuracy and dimensional stability. It also has high abrasion resistance, high flexural strength, and high impact strength. These material features make the printed products easy to clean.

PRODUCT PERFORMANCE

Parameter	Standard	Unit	Result
Flexural strength	ASTM D790	Mpa	85-95
Flexural modulus	ASTM D790	MPa	2200-2500
Impact Strength (Notched)	ASTM D256	J/m	28
Elongation	ASTM D638	%	8
Hardness	ASTM D2240	Shore D	85-90

SOFT SPLINT RESIN

Product Features

- High precision
- Easy to wear/take off
- Biocompatible
- Anti-corrosion
- High stability



Color:	Semi-clear
Specification:	1kg/bottle
Applicable equipment:	High-precision DLP printer and LCD printer



Soft Splint Resin is a biocompatible material developed to produce flexible bite plates and night guards. Its unique formulation makes the material thermo-reactive and softens it under a temperature of 45°C (113°F). This enables it to be put on and taken off more easily. The material has passed the biocompatibility test and can be used safely in the mouth for a long-term period.

PRODUCT PERFORMANCE

Parameter	Standard	Unit	Result
Flexural strength	ASTM D790	Mpa	30-35
Flexural modulus	ASTM D790	MPa	1000-1200
Elongation at Break	ASTM D638	%	25-85
Hardness	ASTM D2240	Shore D	80-82
Impact Strength(Notched)	ASTM D256	J/m	44

4D CLEAR ALIGNER RESIN

Product Features

- Tough
- Transparent
- Better comfort
- Biocompatible
- Fatigue resistance
- Shape memory



Color:	Transparent
Specification:	1kg/bottle
Applicable equipment:	High-precision DLP printer and LCD printer



4D Clear Aligner Resin is an innovative light-curing resin developed for modern digital dentistry, delicate to provide a safe, accurate and comfortable new solution for invisible orthodontics and personalized restoration. Through dynamic balance flexibility and mechanical stability, the breakthrough formula achieves intelligent adaptation of corrective force, make it fits complex oral morphology perfectly , it can resist saliva erosion and temperature changes during long-term wear, and maintains transparent aesthetic characteristics.

PRODUCT PERFORMANCE

Parameter	Standard	Unit	Result
Flexural strength	ASTM D790	Mpa	30-40
Flexural modulus	ASTM D790	MPa	1000-1200
Elongation at Break	ASTM D638	%	70-80
Hardness	ASTM D2240	Shore D	80-82
Notched Impact Strength	ASTM D256	KJ/m²	4.6
Water sorption	ISO 20795-2	ug/mm³	18

IBT RESIN

Product Features

- Biocompatible
- Flexibility
- Easy to remove
- Translucent



Color:	Semi-transparent
Specification:	1kg/bottle
Applicable equipment:	High-precision DLP printer and LCD printer



IBT (Indirect Bonding Tray) Resin is a breakthrough light-curing resin designed for modern digital orthodontics, providing a new indirect bonding solution of precise, efficient and non-invasive. Through intelligent mechanical adaptation and biological functional design, its innovative formula achieves sub-millimeter accuracy in the positioning of brackets, make it fits the complex dentition morphology perfectly, it can resist chemical corrosion and mechanical stress in clinical operations, providing seamless collaborative treatment experience for doctors and patients.

PRODUCT PERFORMANCE

Parameter	Standard	Unit	Result
Tensile strength	ASTM D638	Mpa	12
Tensile modulus	ASTM D638	Mpa	35
Elongation at break	ASTM D638	%	>140
Hardness	ASTM D2240	Shore D	30
Solubility	ISO 20795-2	ug/mm ³	3.5

FIXED HYBRID DENTURES RESIN

Product Features

- High flexural strength
- High abrasion resistance
- Chemical resistance
- MMA & THF-MA free



Color:	A1/A2/OM1/OM2/OM3/B1/C2
Specification:	1kg/bottle
Applicable equipment:	High-precision DLP printer and LCD printer



Fixed Hybrid Dentures based on biological adaptation and functional restoration as core functions, take natural aesthetics as the extension. Through the integration of material innovation and digital technology, it provides a full mouth restoration solution that combines with stability and comfort. It focus on reducing the complexity of clinical operations and exploring the reliability of prosthetics in service, supporting patients from "fixing what is missing" to "rebuilding confidence in life" .

PRODUCT PERFORMANCE

Parameter	Standard	Unit	Result
Flexural strength	ASTM D790	Mpa	130
Flexural modulus	ASTM D790	Mpa	4500
Fracture toughness	ISO 20795-2:2013	MPa m ^{1/2}	4.5±0.1
Hardness	ASTM D2240	Shore D	94
Water sorption	ISO 4049:2019	ug/mm ³	18
Solubility	ISO 20795-2	ug/mm ³	3