# Denture Base Resin

## Long term used available in mouth (1 to 3 years)

Compatible with LCD/DLP
Material certification: FDA/NMPA(in process)

## *Features*

- Ultra high flexural strength
- Fine detailes
- Low water absorption
- Bio-compatible
- MMA/THF-MA free formula
- Excellent dimensional stability

PioNext
Denture Base Resin
PN-Denture
Usage
Note:
Storage:

Red
Photopolymer UV Resin
1000g
Shake Before Use

low skin irritation

low skin hypersensitivity

low shrinkage rate

good temperature resistance

high hardness

Impact resistance

scratch-resistant surface

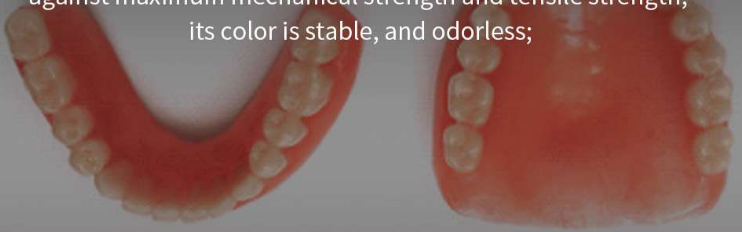
high precision

| | | | |
|---|---|---|---|
| Hardness | ASTM D 2240 | / | 85-90 |
| Flexural modulus | ASTM D 790 | MPa | 3000-4000 |
| Flexural strength | ASTM D 790 | MPa | 130-150 |
| Tensile modulus | ASTM D 638 | MPa | 1500-2000 |
| Tensile strength | ASTM D 638 | MPa | 80-100 |
| Elongation at break | ASTM D 638 | % | 25-30 |
| Impact strength,notched lzod | ASTM D 256 | J/m | 17 |
| Water absorption | ASTM D570 | % | <1.0 |

- in vitro cytotoxicity ISO 10993-5
- irritaticon ISO 10993-23
- pyrogen ISO 10993-11
- skin sensitization ISO 10993-10
- systemic toxicity ISO 10993-11
- genotoxiccity, carcinogenic and reproductive toxicity ISO 10993-3

# Outstanding physical properties

Finished product is high hardness and strength that ideal for end use and long term use; its ultra-low viscosity will reduce material waste and speed up the cleaning process;Final products will not become brittle against maximum mechanical strength and tensile strength, its color is stable, and odorless;



## Denture base resin application

**Full denture base**

**Partial denture base**

# Excellent biocompatibility

PioNext denture base resin has passed 6 related ISO 10993 tests, excellent bio-compatibility will not result in allergies, inflammation or other adverse reactions;
Notice: IOS 10993 tests are for common people, for people with special physical conditions, this product may still cause risks of allergic, inflammation or other adverse reactions.

## Full denture base

Used for edentulous patients to confirm the fit and comfort of the complete denture.

## Partial denture base

Used for patients with partial tooth loss to help verify the retention and occlusal effect of the partial denture.

## Fixing bridge base

Used for trial fitting before dental bridge restoration to check the design and occlusal relationship.

## Inlay and veneer base

Used for trial fitting before the restoration of one or several teeth to ensure the height, shape, and aesthetics of the restoration.

# The application of PioNext Denture Base Resin

Removable denture base resin is much more durable and stable for long-term use.

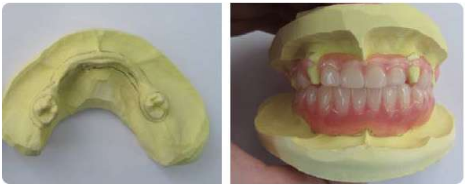
## Impression

To obtain the patient`s mouth model with an oral scanner, CT scanner, or impression materials.

## 3D printing of trial denture base

3D Print trial denture base with trial denture base resin.

## Trial fitting and adjustment



Adjust the shape and position according to the patient's feedback to achieve the requested comfort and functionality.

## Fabrication of removable denture

Fabricate removable denture after the trial denture base is confirmed.

# Recommended parameter

## Application parameters of Denture base resin_PN-Denture

| Device name | Thickness | Bottom layer exposure time | Layer exposure time | Motor speed |
|---|---|---|---|---|
| LCD | 0.05-0.1(mm) | 30-35(s) | 3.0~3.4(s) | 3~4(mm/s) |
| DLP | 0.05-0.1(mm) | 20-25(s) | 2.0~2.3(s) | 3~4(mm/s) |

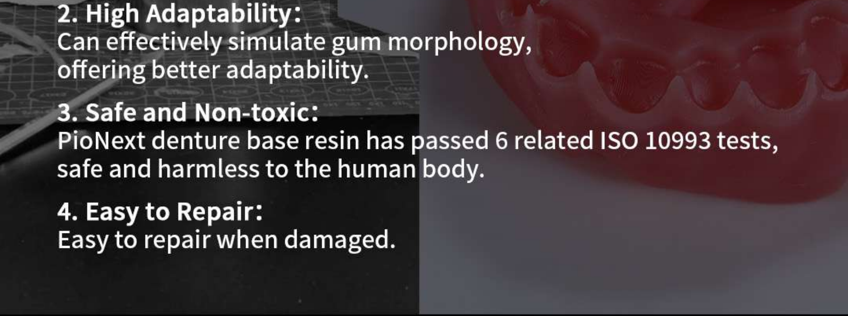
## Post-processing parameter recommendations table of Denture base resin_PN-Denture

| Device name | Wavelength | Percentage of Light Intensity | Recommended time | curing with/ without water |
|---|---|---|---|---|
| UV02 | (385+405)nm | 100% | 15(10-20)min | Yes |

# Advantages of digital dental workflow

## Advantages of denture base resin to fabricate dentures.

**1. Aesthetic and Comfortable：**
Resin color closely matches the natural appearance of gums, providing a more natural look. The lightweight and high elasticity of the resin make it more comfortable to wear.



**2. High Adaptability:**
Can effectively simulate gum morphology, offering better adaptability.

**3. Safe and Non-toxic:**
PioNext denture base resin has passed 6 related ISO 10993 tests, safe and harmless to the human body.

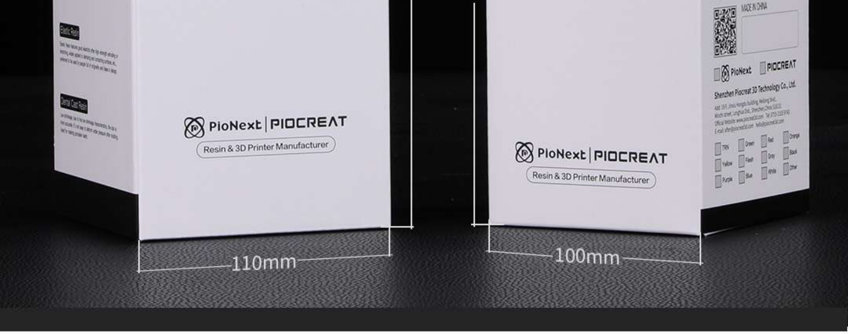
**4. Easy to Repair:**
Easy to repair when damaged.

# Packaging display

Note: The packaging is for reference only, there may be differences between different batches, and make the object as the standard.

1000g: 290×110×110mm | 500g: 190×100×100mm

3D Printer
UV Curable Resin
1000g
290mm
190mm
3D Printer
UV Curable Resin
500g


PioNext | PIOCREAT
Resin & 3D Printer Manufacturer
110mm
PioNext | PIOCREAT
Resin & 3D Printer Manufacturer
100mm
MADE IN CHINA
Shenzhen Piocreat 3D Technology Co., Ltd.

# Material usage notice

post-processing and washing
Safety precautions
Correct storage method

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## post-processing and washing

1. The print model should be cleaned with absolute ethanol/isoprpanol using low-frequency ultrasonic cleaner. Do not use high-frequency to cleaning or scrub the model too hard, in order to avoid to cause certain damage to the surface of the model.

2. Using an air gun or hair dryer to remove the cleaning fluid on the surface of the model.

3. It is recommended to remove the support for model before the post-cure treatment. After then, is recommended to remove rest of the detailed supports and do the surface treatment.

4. Adjust the curing time according to the selected post-curing mode.

## Safety precautions

1. This product is for one-time use and cannot be reused.

2. Only use it under good ventilation,please pay attention to air circulation and take protective measures when using.

3. Eye Contact: Immediately flush with plenty of clean water. If you still feel unwell after washing, please seek medical attention immediately.

4. Skin Contact: Remove contaminated clothing and rinse contact area thoroughly with soap and water.

5. 3D resin is not approved for use with food, drink.If swallowed accidentally, do not induce vomiting, keep at rest and seek medical attention in time.

6. Disposal of waste should be in acoordance with local enviromental rugulations

## Correct storage method

Please storage the product below to the 25 °C, avoid exposure to the light, general illumination visible light will initiate polymerization reaction.

Do not place it in the sun exposure, humid and corrosive gas presence place.

**The shelf life is 18 months.**