

Better trust Better smile



BLOOMDEN ALL CERAMIC MATERIAL MANUAL



Bloomden Bioceramics (HuNan)Co.,Ltd.
CAD/CAM Solution Provider

Manufacturing Base

No.301,5th building ,Hi-tech Int'l Enterprise Port,LianDong U Vally,Linyu Rd,
Dongfanghong street,Hi-tech Development Zone,Changsha,Hunan,410000,P.R,China

Bloomden Bioceramics Co., Ltd.
BETTER TRUST BETTER SMILE



Bloomden

CONTENTS

> Zirconia and Consumables	01 Zirconia Powder	03
	02 Lumix-3D	11
	03 White Zirconia	16
	04 Preshaded Zirconia	17
	05 Multilayer Zirconia	18
	06 Fast Sintering Solution	19
	07 Paste Glaze/Stain	21
	08 Paste Glaze/Stain Gum	23
	09 Diamond Paste	24
> Digital Equipment	01 FC-100 Intraoral Scanner	27
	02 D2 3D Printer	29
	03 X6 Milling Machine	31
	04 Steadyfire Max Sintering Furnace	33
	05 Profire Speed Sintering Furnace	35
	06 PF1 Porcelain Furnace	37
	07 BD-200 Grinder Machine	38
> Other Materials	01 PMMA	41
	02 PEEK	42
	03 Wax	43
	04 Press Ingots	44
> Dental Tools	01 Milling Burs	47
	02 Polishing Tools	48
> Implant System	01 Abutment	51
	02 CAD/CAM Implant System Workflow	52
> Online Lab Service	01 Digital Online Service	55
	02 Dental Lab Outsourcing	57
> About Bloomden	01 Value proposition	61
	02 Company Culture	63



Better trust Better smile



> ZIRCONIA AND CONSUMABLES

- 01 Zirconia Powder
- 02 Lumix-3D
- 03 White Zirconia
- 04 Preshaded Zirconia
- 05 Multilayer Zirconia
- 06 Fast Sintering Solution
- 07 Paste Glaze/Stain
- 08 Paste Glaze/Stain Gum
- 09 Diamond Paste

Zirconia

Zirconia Powder Preparation Process

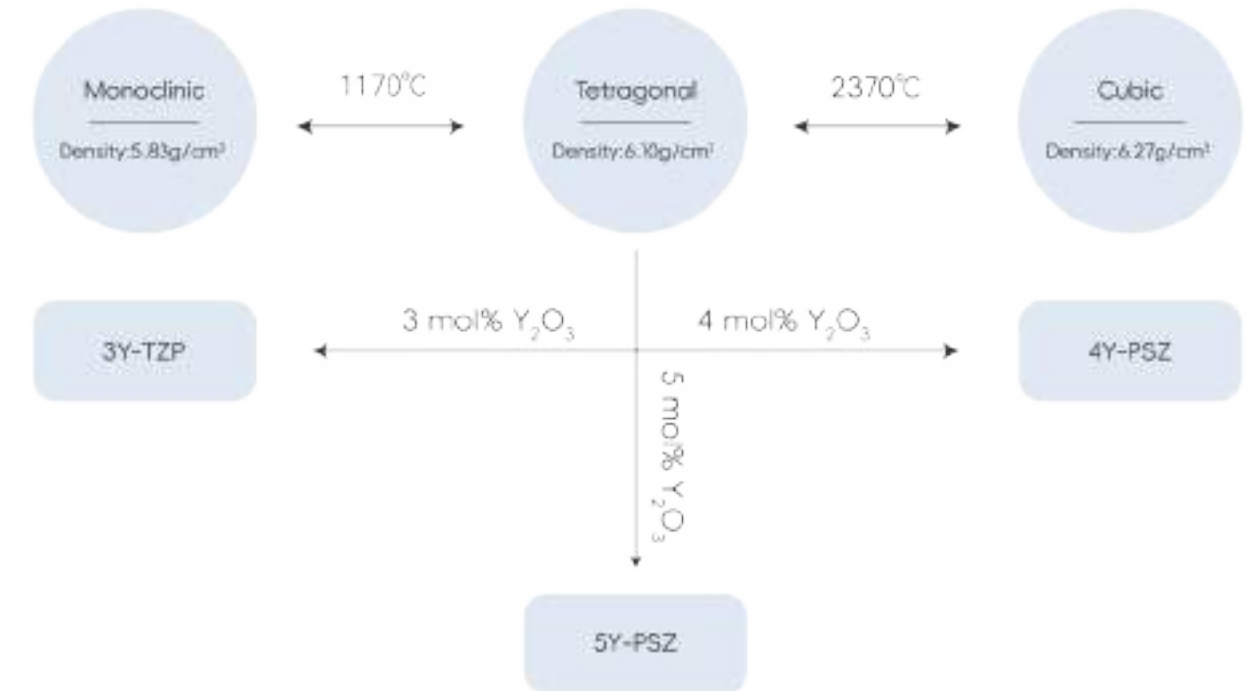


Zirconia Ceramics Classification



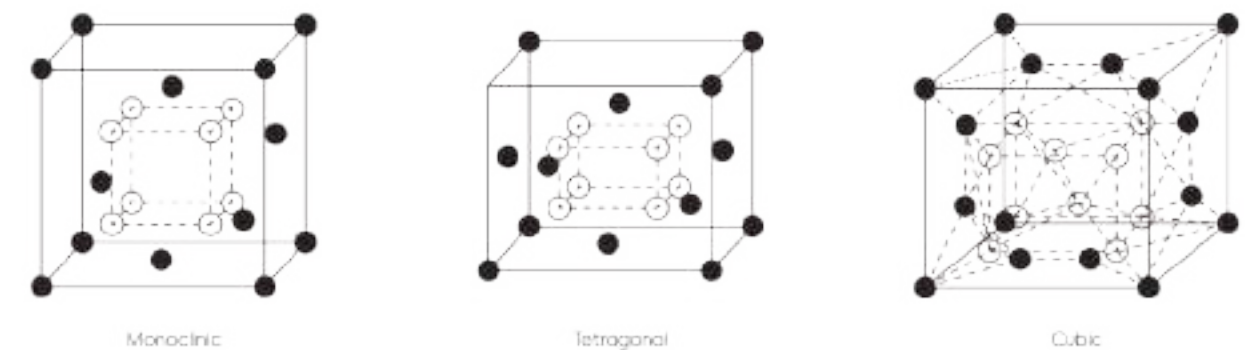
Zirconia Crystal Phase Structure

3Y-TPZ(Tetragonal Zirconia Polycrystals): The grain size is around $0.5\ \mu\text{m}$ – $1.0\ \mu\text{m}$. Because 3Y-TPZ is a birefringent crystal, It has super high strength and fracture toughness, but the light transmittance is not good enough. They are generally applied in the posterior, bridge and full arch.



4Y-PSZ (Partially Stabilized Zirconia): In 4Y-PSZ, cubic zirconia is the main component, with a content of more than 25% or even 50%. Due to the increased cubic zirconia content, 4Y-PSZ has better light transmittance but lower strength. Generally applied in single crown, inlay, and veneer.

5Y-PSZ(Partially Stabilized Zirconia): It contains more than 70% cubic zirconia. Compared to 4Y-PSZ, 5Y-PSZ has ultra-light transmittance and lower strength. Generally applied anterior crown and veneer.



Bloomden Zirconia Series

	Lumix	Cubic	Solid	Vitality	Classic
	3D-Pro-ML	UT	ST	SHT	HT-Plus
3D-Pro-ML Zirconia					
Multilayer Zirconia					
Preshaded Zirconia					
White Zirconia					

Zirconia Blocks Indications

										
		Aesthetic shade	Coping	Anterior crown	Posterior crown	3 units bridge	4+ units bridge	3 units coping	4+ units coping	Full arch
	Lumix-3D	 Multilayer A1/A2/A3/A3.5/A4 B1/B2/B3/B4 C1/C2/C3/C4 D2/D3/D4 BL1/BL2/BL3/BL4	●	●	●	●	●	●	●	●
	Cubic	 White White only	●	●	●	●		●		
		 Preshaded A1/A2/A3/A3.5/A4 B1/B2/B3/B4 C1/C2/C3/C4 D2/D3/D4	●	●	●	●		●		
		 Multilayer A1/A2/A3/A3.5/A4 B1/B2/B3/B4 C1/C2/C3/C4 D2/D3/D4	●	●	●	●		●		
	Solid	 White White only	●		●	●	●	●	●	●
		 Preshaded A1/A2/A3/A3.5/A4 B1/B2/B3/B4 C1/C2/C3/C4 D2/D3/D4	●		●	●	●	●	●	●
		 Multilayer A1/A2/A3/A3.5/A4 B1/B2/B3/B4 C1/C2/C3/C4 D2/D3/D4	●		●	●	●	●	●	●
	Vitality	 White White only	●		●	●	●	●	●	
		 Preshaded A1/A2/A3 B1/B2/BL2	●	●	●	●	●	●	●	●
		 Multilayer A1/A2/A3 B1/B2 BL1/BL2/BL3/BL4	●	●	●	●	●	●	●	●
	Classic	 White White only	●		●	●	●	●		

Lumix-3D

Multilayer Gradient Material



Physical Properties

Density after sintering	6.07±0.01g/cm³
Monoclinic phase content	<15%
Chemical solubility	<100
Radioactivity	<1
Sintering temperature	1480-1560°C

Chemical Composition

ZrO ₂ +HfO ₂ +Y ₂ O ₃	≥99%
Y ₂ O ₃	4.5%-10%
Al ₂ O ₃	<0.15%
Other oxides	<0.5%

Size



Thickness



Color



Bending strength

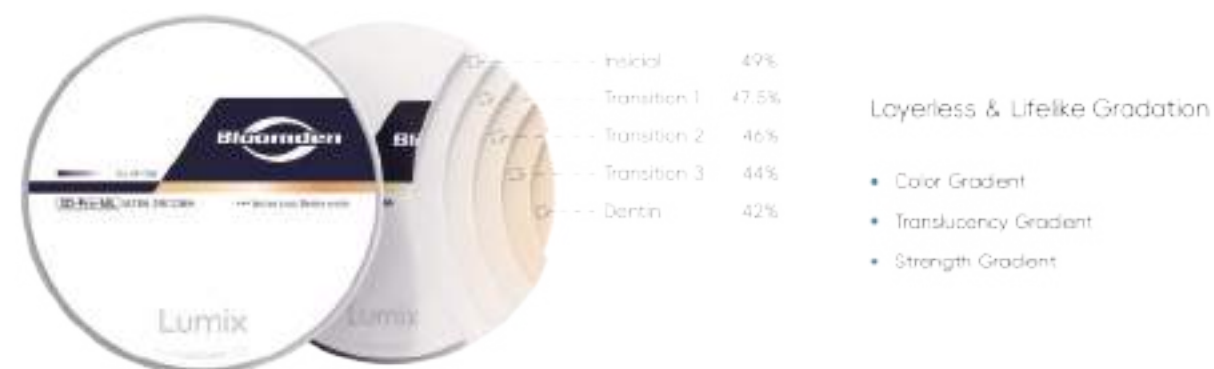


Translucency



Features of Lumix-3D Gradient Zirconia

Outstanding Aesthetics



SEM mages, 5000 magnification

Surface observation of sintered zirconia ceramic slices at 5000x magnification under an electron microscope.



Bloomden



Others

The electron microscope image reveals that other brands have a second phase with their grains, leading to uneven grain growth and poor light transmission. In contrast, Bloomden Lumix-3D zirconia exhibits uniformly grown grains with consistent size and dense arrangement. This uniform grain structure enhances the strength and stability of the zirconia, resulting in superior mechanical properties and durability.

Color Accuracy

No need for complex and unreliable porcelain built and staining techniques



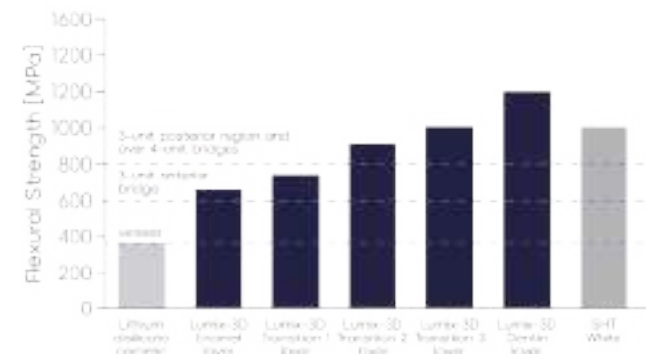
Case Show

Bloomden Lumix-3D utilizes biomimetic natural color, strength and translucency gradients to ensure the natural aesthetic effect of veneer restorations.



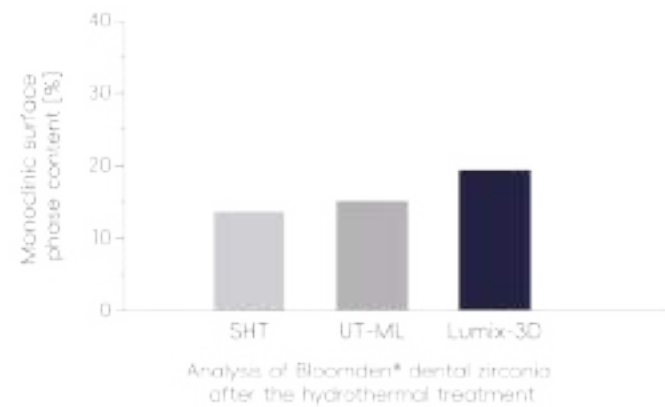
Super High Strength

The bending strength of Bloomden Lumix-3D naturally transitions from 800MPa to 1200MPa, which can meet the strength of restoration materials for a wide range of indications.



Superior aging resistance

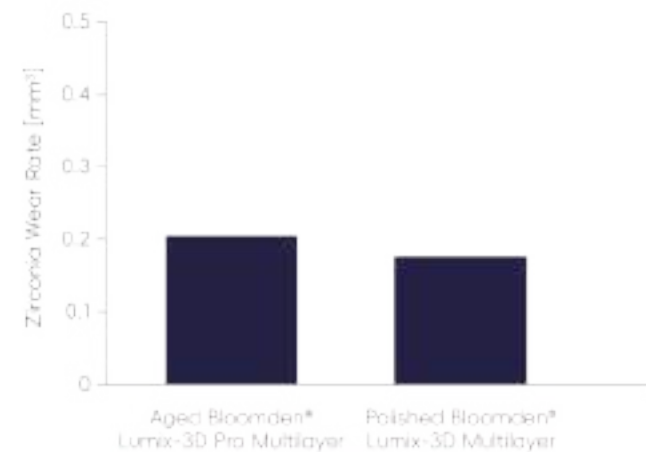
The unique hydrolysis microstructure and chemical formula of Bloomden Lumix-3D can resist aging from cubic phase to monoclinic phase.



Low wear rate

Bloomden Lumix-3D zirconia has less wear on natural enamel and maintains a good initial shape of the natural enamel surface.

The study revealed that the aged zirconia and polished zirconia both have identical roughness and less wear of opposing enamel.



Restorations are available with monolithic full contour crowns, bridges, veneers or full arch



4.5h Full arch Sintering Revolutionary breakthrough



Thorough testing and research laid the foundation for the development of this revolutionary material. We equally prioritize aesthetics (shade and translucency), reliability, and strength, ensuring the material can be rapidly sintered to meet the growing demands of today.



White Zirconia

Work stable, easy for milling
High strength, cost-effectiveness
Superior personalized internal stain
Applicable to full arch and long bridge

- Work stable, easy for milling
- Superior personalized internal stain
- Applicable to full arch and long bridge
- High strength, cost-effectiveness



Physical Characteristics

	Cubic	Solid	Vitality	Classic
Monoclinic phase content	<15%	<15%	<15%	<15%
Sintering density	6.06±0.01g/cm ³	6.09±0.01g/cm ³	6.06±0.01g/cm ³	6.09±0.01g/cm ³
Sintering temperature	1450°C	1530°C	1530°C	1530°C

Chemical Properties

	Cubic	Solid	Vitality	Classic
ZrO ₂ +HfO ₂ +Y ₂ O ₃	>99%	>99%	>99%	>99%
Y ₂ O ₃	9%-10%	4.5%-6.0%	7.0%-7.8%	4.5%-6.0%
Al ₂ O ₃	<0.05%	<0.15%	<0.15%	<0.25%

Product Information



Cubic	Bending Strength	Translucency
	650MPa	49%



Solid	Bending Strength	Translucency
	1200MPa	41%-43%



Vitality	Bending Strength	Translucency
	1000MPa	46%



Classic	Bending Strength	Translucency
	1350MPa	37%

I am a salesman in Russia. I have to face all kinds of customers every day, and it is my job to negotiate business. For years, I have suffered from dental problems because my unsightly anterior teeth. Introduced by a friend, I chose to come to Dr. S for Bloomden Lumix-3D zirconia veneer restoration. Now I have finally regained my former self-confidence.

More case, please
contact Bloomden >>>>

Source: College of materials science and engineering,
Hunan University, Bloomden business college
(Industry-Teaching-Research Base)

Material: Lumix-3D Zirconia
Name: College presentation Case (Anterior)
Designer: TOM

Preshaded Zirconia

Ensures uniform color, reduces dip-dye issues.
No need for multiple dyes.
Match Vita 16 shade guide
Applicable to long-span bridge without chipping

- Match Vita 16 shade guide
- Ensures uniform color, reduces dip-dye issues. No need for multiple dyes.
- Applicable to long-span bridge without chipping



Physical Characteristics

	Cubic-C	Solid-C	Vitality-C
Monoclinic phase content	<15%	<10%	<15%
Sintering density	6.06±0.01g/cm ³	6.09±0.01g/cm ³	6.08±0.01g/cm ³
Sintering temperature	1450°C	1530°C	1530°C

Chemical Properties

	Cubic-C	Solid-C	Vitality-C
ZrO ₂ +HfO ₂ +Y ₂ O ₃	>99%	>99%	>99%
Y ₂ O ₃	9%-10%	4.5%-6.0%	7.0%-7.8%
Al ₂ O ₃	<0.05%	<0.15%	<0.15%

Product Information

	Cubic-C	Bending Strength 600MPa	Translucency <49%
	Solid-C	Bending Strength 1100MPa	Translucency <43%
	Vitality-C	Bending Strength 900MPa	Translucency <46%

Multilayer Zirconia

Efficient process, only simple glazing required
Wide indications, applicable for anterior restoration
Layerless transition ensures the efficient fabrication of natural-looking restoration

- Work stable, easy for milling
- Efficient process, only simple glazing required
- Layerless transition ensures the efficient fabrication of natural-looking restoration



Physical Characteristics

	Cubic-ML	Solid-ML	Vitality-ML
Monoclinic phase content	<15%	<10%	<15%
Sintering density	6.06±0.01g/cm ³	6.09±0.01g/cm ³	6.08±0.01g/cm ³
Sintering temperature	1450°C	1530°C	1530°C

Chemical Properties

	Cubic-ML	Solid-ML	Vitality-ML
ZrO ₂ +HfO ₂ +Y ₂ O ₃	>99%	>99%	>99%
Y ₂ O ₃	9%-10%	4.5%-6.0%	7.0%-7.8%
Al ₂ O ₃	<0.05%	<0.15%	<0.15%

Product Information

	Cubic-ML	Bending Strength 600MPa	Translucency <49%
	Solid-ML	Bending Strength 1100MPa	Translucency <43%
	Vitality-ML	Bending Strength 900MPa	Translucency <46%

Bloomden CAD/CAM Fast Sintering Solution



8.Porcelain Furnace PF1



1.3D Printer D2



7.Paste Glaze/Stain



2.Intraoral Scanner FC-100



6.Polishing Tools+ Diamond Paste



5.Profile Speed Sintering Furnace

4.Milling Machine X6

3.Lumix-3D Zirconia

3h Get Your Denture In

By combining speed and aesthetics, this solution offers clinics and labs the ability to operate more efficiently, allowing them to focus on more challenging processing tasks while still maintaining high-quality results.

The solution takes the Profile Speed fast sintering furnace as the core, equipped with the FC-100 intraoral scanner FC-100, 3D printer D2, a proficient design team, a specialized milling center, and 5-axis milling machine X6, allowing Same-day wearing on a reality in one visit.

Characteristics:

Suitable for Full Arch

It has a wide range of indications. Tested by Bloomden laboratory, it can support fast sintering in full arch.

Less Strength Reduction

Compared to the slow-sintered strength, Bloomden Lumix-3D 5-layer shade exhibits an average strength decrease of only 8.88%.

Fast Delivery

Our fast sintering technology achieves crystallization in just 1.5 hours, benefiting dental lab and clinic workflows.

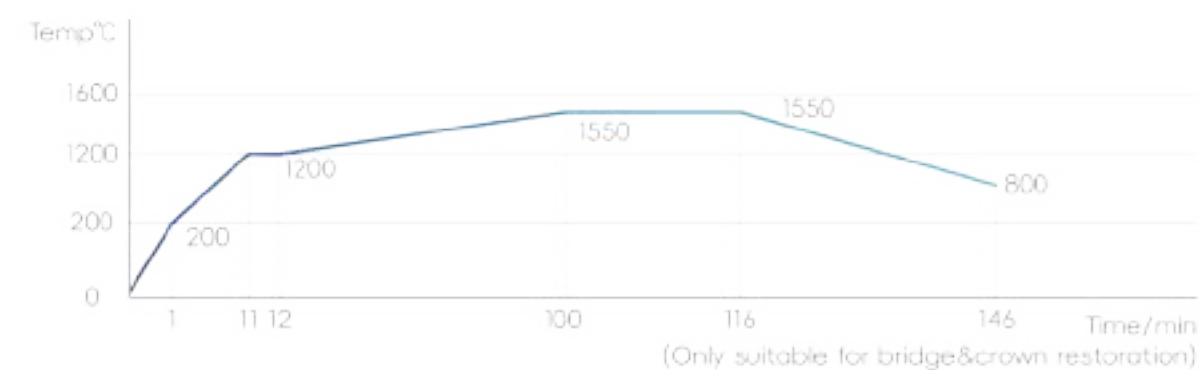
Better Customer Experience

Patients enjoy fast, tailored solutions, reducing wait times for restoration and implantation.

Fast Sintering Curve:

Lumix-3D(≤6 units)(146Min)

Start temperature	Heating rate (1st stage)	Max temperature (1st stage)	Heating rate (2nd stage)	Max temperature (2nd stage)	Holding time
Room temperature	200°C/Min	200°C	100°C/Min	1200°C	60s
Heating rate (3rd stage)	Max temperature (3rd stage)	Holding time	Cooling time	Temperature drops to	
4°C/Min	1550°C	16Min	30Min	800°C	



Paste Glaze/Stain

Easy operation and realistic effects

With fine particles and uniform coloring



For the external stain of zirconia full crown, Bloomden has launched a set of external glaze paste with easy operation and realistic effects. The kit includes four main color system of ABCD, 12 special effect colors, transparent glaze and diluent. No need to mix powder and liquid before use, paste-like glaze is with fine particles and uniform coloring. Each paste can be freely matched to achieve a satisfactory effect.

All in one

It is suitable for the glazing of all types of dental ceramic restoration materials such as zirconia and glass ceramics. There is no need to prepare various pastes for restorations of different materials. One set of products can meet all staining needs.

Easy operation

The matching of CeramStar glaze paste is reasonable. According to the instructions and instructions of Bloomden technicians, the technicians can master its use method after a simple study, easily shape the details of the surface of the restoration, and produce a restoration with ideal aesthetic effect.

Time saving

No need to mix powder and liquid before use, paste-like glaze is with fine particles and uniform coloring. It is easy to apply on the restoration surface, easy to shape, saving preparation and application time.

Lifelike aesthetics

It presents realistic fluorescence and gloss close to natural tooth, and realizes double blanks from aesthetics to form.



Technical Parameters

Linear expansion coefficient

$CTE(25^{\circ}C/T_g)$ [10⁻⁶/K]

Chemical stability

<100ug/cm²

Storage conditions

Store in dry conditions,
the optimum temperature is 12°C~28°C

Bending strength

>50MPa

Shade Composition

Basic Color

A Shade

B Shade

C Shade

D Shade

Glaze

Glaze

Effect Color

Orange 1

Orange 2

Yellow

Terracotta

Blue 1

Blue 2

Black

Mauve

White

White c

Brown

Pink R

Glaze/Stain Kit

• Basic Kit

1 bottle-Glaze-4g
2 bottle-glazing liquid-25ml
6 bottle-stain-4g each(A,B,C,D,Blue 1,White)



• Aesthetic Kit

1 bottle-Glaze-4g 2 bottle-glazing liquid-25ml
16 bottle-stain-4g each(A,B,C,D,White c,Glaze,
Orange 1,Orange 2,Yellow,Terracotta,Blue 1, Blue 2,
Black,Mauve,Brown,Pink R)



External stain sintering curve(2-3 units bridge and single crowns)

Initial temperature	Drying	Heating rate	Max temperature	Heat preservation	Final temperature
500°C	4min	30°C/min	820°C	2min	300°C

External stain sintering curve(>3 units bridge)

Initial temperature	Drying	Heating rate	Max temperature	Heat preservation	Final temperature
500°C	4min	30°C/min	820°C	2min	300°C

Paste Glaze/Stain Gum



All in one

It is suitable for the gingival glazing of all types of dental ceramic restoration materials such as zirconia and glass ceramics. There is no need to prepare various pastes for restorations of different materials. One kit of products can meet all staining needs.

Easy to Use

Bloomden Glaze/Stain offers an easy and user-friendly solution. With Bloomden's comprehensive product training, technicians can quickly master its usage after simple learning.

Lifelike Aesthetic

Bloomden Glaze/Stain has a strict ratio. Each color is experimentally formulated to strive to achieve natural and lifelike results, such as free gingival, bone contour, mucus area, tissue vessels, gingival tissue, etc.

Classificatic

Gingival 1		Jade Red: For main color area of light-colored gums
Gingival 2		Dark Pink: Mixed with other pinks to adjust the color concentration
Gingival 3		Crimson purple: Strengthen gum area composition and staining
Gingival 4		Orange pink: For creating a darker gum color effect
Gingival 5		Pink: For free gingival
Gingival 6		Light red: For bone contour area coverage
Gingival 7		Rose Pink: For mucus area or mixed with Gingival 2 to adjust main color area

Bloomden Diamond Paste

Bloomden Diamond Paste is a solid polish in a jar that can be used to polish all types of crown and bridge restorations.



Component name	Ingredient	Content%	CAS
Diamond powder	C	1-8%	7782-440-3
Aluminum oxide	Al_2O_3	1-8%	1344-28-1
glycerin	$C_3H_8O_3$	>70%	56-81-5

Advantage



Effective & Ease-of-use



Easy polishing in occlusal anatomy



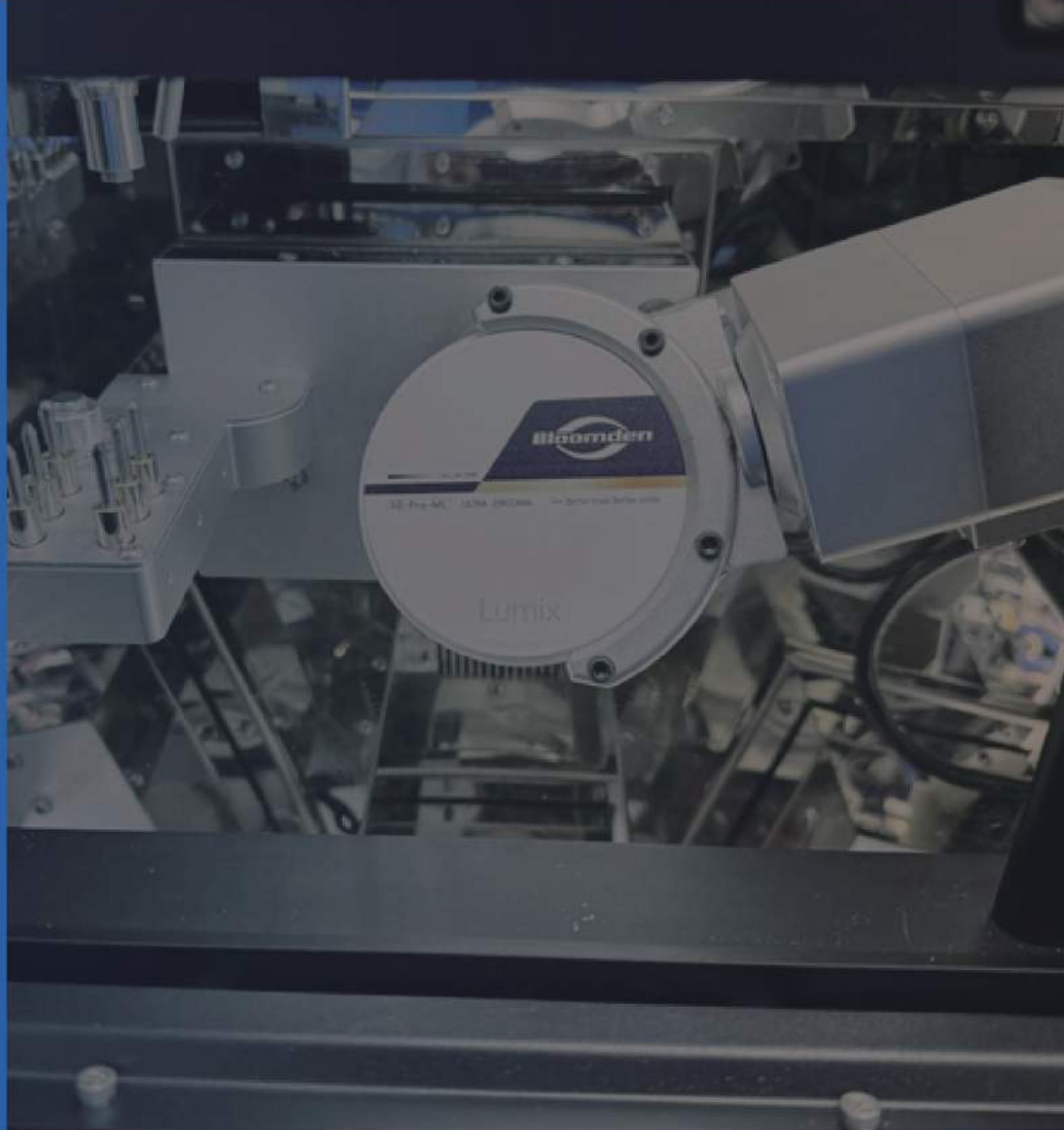
Skip the Glaze without the seashell effect



Dust-free & Easy Clean up



Better trust Better smile



> DIGITAL EQUIPMENT

- 01 FC-100 Intraoral Scanner
- 02 D2 3D Printer
- 03 X6 Milling Machine
- 04 Steadyfire Max Sintering Furnace
- 05 Profire Speed Sintering Furnace
- 06 PFT Porcelain Furnace
- 07 BD-200 Grinder Machine

Bloomden Intraoral Scanner FC-100

Scanning Accuracy

15um for single crown
30um for full arch

Easy Operation

Net Weight 225g
User-friendly interface
Streamlined design

Full Arch Impression: Only 60s



Digital Inspection



Digital Diagnosis



Digital Production



Doctor-patient Communication

Technical Data

Product name	Bloomden Intraoral Scanner FC-100
Dimension	230mm(L)*58mm(W)*36mm(H)
Scanning Speed	15 fps
Scanning Accuracy	15um for single crown and 30um for full arch
Weight	235 g
Scan Technology	Continuous Scanning
Interface	USB 3.0
Power Supply	DC12V 2A
Data Cable of Scanner (connection between base and handpiece)	1.9m
USB Data Cable (base and computer connection)	1.2m
Operating Temperature	10°C~40°C

Restoration

Supports intraoral data collection for various types of restoration cases, including veneers, inlays, crowns and bridges, etc. One visit, immediate restoration.



Implant

"AI Intelligent Scan" feature is ideal for scanning hard-to-reach areas such as narrow implant areas or metallic scan body materials. Scan wand data can be replaced with database data to accurately reproduce implant position and angle.



Orthodontics

Bloomden Intraoral Scanner FC-100 provides orthodontists with measurements of occlusal distances with extremely high accuracy and efficiency. Get orthodontic treatment quickly, and save time for more patients.



Bloomden 3D Printer D2

Committed to 3D printing solutions for dental labs

Establish three business modules: printing materials, printers, and printing services, to provide comprehensive products and services for dental labs.

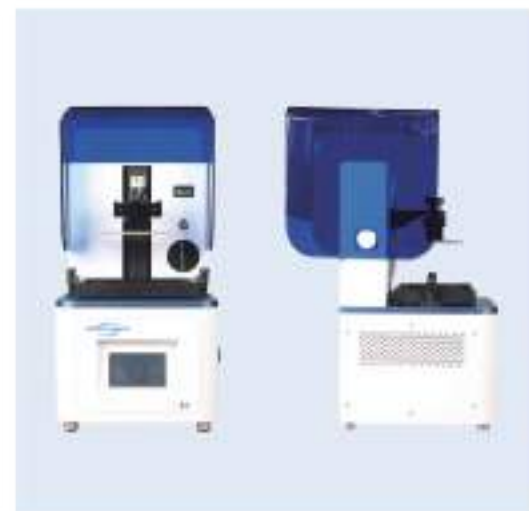
Temporary Crown and Bridge Printing Solution

This equipment is perfectly matched with the materials, ensuring printing efficiency, with printing completed in 20+ minutes. Facilitating the try-in of implant bridges and the digital fabrication of temporary crowns.



Bloomden 3D Printer D2

Category	Parameters
Type	3D Printing D2
Light Source	UV LED Parallel Light
Screen Resolution	3840*2600
Print Dimension	192*120*150mm
Equipment Dimensions	350*350*580mm
Net Weight	26KG
Accuracy	±0.03mm



Applicable Cases



Fixed



Implant



Removable



Orthodontics



Temporary Crown



Implantation Guide



Gingiva



Individual Palate



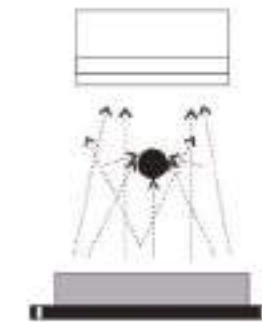
Jaw

Hardcore quality

Light source selection: Parallel light ensures the accuracy of the printing area.



Parallel light



Ordinary light

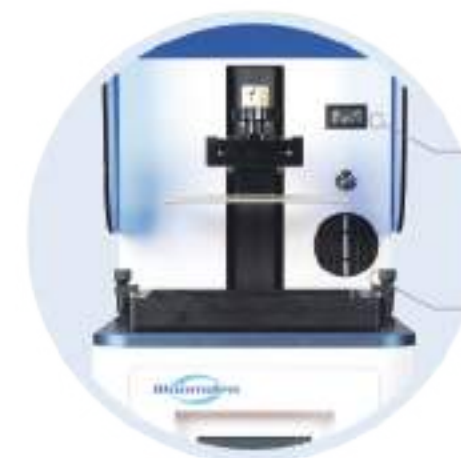
Z-axis Accuracy Guarantee: Imported ball screw module. Equipped with dual rails on both sides in a Gottwald-style configuration and a U-shaped integrated design for the main body, ensuring equal load-bearing capacity in all four directions, high rigidity, and a compact structure.



Goethe style guide rail



U-shaped body integration



Auto-Temp Control System

Heating is performed as per room temperature to facilitate technician operation. Meanwhile, it also reduces the requirements for the environment.

Efficient production

The exposure time is 1.6S, which is much higher than the efficiency of ordinary printers on the market. The production efficiency is less than 40 minutes/plate, allowing higher production capacity.

Bloomden Dental Milling Machine X6



Technical Data

	Dry Milling	Wet Milling
Dimensions	625 X 52 X 73cm	625 X 480 X 635mm
Weight	110KG	135KG
Tool shank diameter	4mm	6mm
Tool change	Fully automatic	Fully automatic
Interface	USB/LAN	USB/LAN
Air Pressure	4.5-8 Bar	4.5-8 Bar
Tool quantity	6	12
Spindle power	1.2kw	2.5kw
Main power	1.8kw	2.3kw
Material	Zirconia, resin, wax, etc.	Glass ceramics, Wax, PMMA and other materials

High in reliability and wide in application

By integrating advanced digital technology and intelligent machinery, we're advancing dental craftsmanship with a comprehensive range of restorations—from crowns and bridges to digital dentures and surgical guides—a powerful and cost-effective solution.



Optimized mechanical performance

Our automatic tool changer with 6 storage units ensures uninterrupted production—enhanced stability and milling quality with new tools. The upgraded water cooling system boosts flow and capacity, maximizing productivity for superior performance and precision.



High-precision five-axis milling and trimming

The disc's rotation and tilting allow for deep bottom milling, handling large curved applications, and precise full-arch denture restorations effortlessly. This method enhances efficiency and versatility in dental machining, ensuring exceptional accuracy and finesse for diverse restoration tasks.



Steadyfire Max Sintering Furnace

This zirconia sintering furnace is mainly used in dental labs to complete the crystallization and sintering of zirconia crowns. The zirconia sintering furnace uses 1800°C high-purity silicon-molybdenum rods for heating, which will not cause secondary pollution to the crowns. The furnace uses four-sided heating, which makes the temperature field of the furnace more uniform than that of traditional muffle furnaces, and the sintered crowns have better permeability and consistency.



Technical Parameters

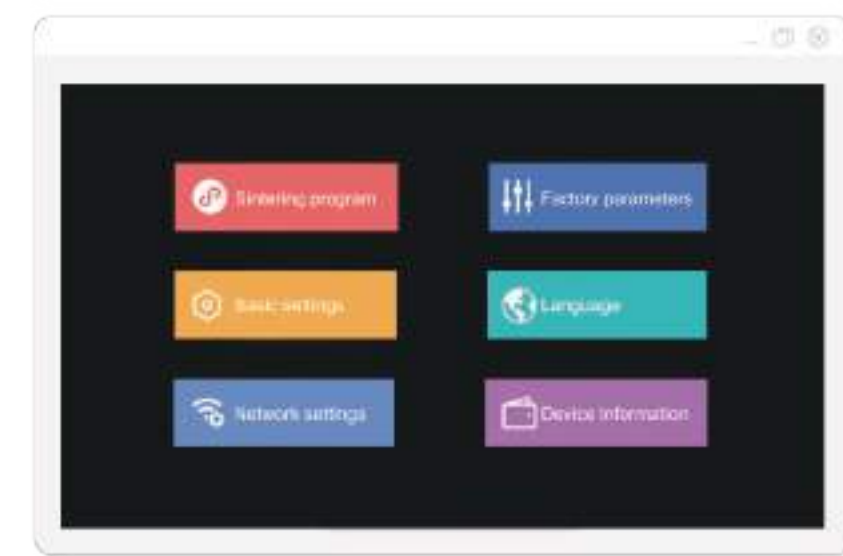
Power supply	AC 220V 50/60Hz
Chamber material	Imported Alumina Fiber
Chamber mode	Lift type, silent treatment of lifting mechanism
Chamber size	Φ110x120mm
Chamber capacity	1.2L
Heating power	2.5KW
Operating temperature	0~1650℃
Heating rate	<30℃/min
Temperature control accuracy	±1℃
Temperature control mode	PID 30-stage program temperature control



User-friendly
Interactive Interface



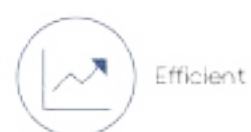
Intelligent Remote
Control



Bloomden Profire Speed Sintering Furnace



Easy



Efficient



Intelligent



Technical Parameters

Dimension(W×D×H)	360×460×590mm
Usable Measure (Firing Chamber)	90 mm
Net Weight	40Kg
Number of Heating Elements	4
Numbers of Sintering Trays	2
Diameter of Sintering Tray	90mm
Max Sintered Restorations	50 single crowns
Heating Elements	High-purity threaded silicon carbide rod
Power Supply	100-120V 50/60HZ 230V 50/60HZ
Max Temperature	1550°C max
Hold Time of Max Temperature	2H
Custom Programs	50
Temperature Control Accuracy	+/-2°C
Heating Rate	200°C/min
Rated Power	3KW



Easy

- True color screen, one-button operation, easy operation
- Ready to use, no preheating required



Excellent Performance

- No contamination, no discoloration
- Precise color, high translucency



Efficient

- 1.5 hours fast crystallization, 81% faster than traditional
- Large capacity sintering: Can accommodate two layers of sintering trays, 30-50 restorations can be sintered at one time
- Full morphology zirconia fast sintering



Intelligent

- Automatic calibration before each sintering systems
- Auto-temperature adjust function Ensure the actual error within +/-2°C
- Intelligent fast cooling technology



Parts



Sintering trays

Heating elements

Zirconia beads

Bloomden Porcelain Furnace PF1



Technical Parameters

Heating Rate	200°C / min max
Max Temperature	1200°C max
Time(at max temperature)	2 Hours
Operation Range	100-120V 50/60Hz 230 V 50/60 Hz
Power Supply	14.5A@110V 7.0A@230V
Power	1500W Max
WDH	27*36*53cm
Usable Measure	9cm(3.5")
Net Weight	20kg
Total Weight	23.5kg

Bloomden Dental Grinder Machine BD-200



High efficiency

No need to replace carbon brushes and rotors, simple repair and maintenance, greatly improve work efficiency.

Longer lifespan

Using a controller, not commutators or carbon brushes, extends brush motor lifespan several times.

Higher speed

Using magnetic induction speeds up grinding and carving, meeting your speed needs.

High Torque

A brushless grinder's power surpasses brushed ones, maximizing artisans' grinding force needs.

Technical Data

Product name	Bloomden BD-200 Brushless grinder
Power supply	AC220 50Hz
Dimensions	20x15.5x9.5cm
Weight	2.3kg
Speed	50,000 RPM
Torque	7.0N.cm
Handle Weight	140g



Better trust Better smile



> OTHER MATERIALS

- 01 PMMA
- 02 PEEK
- 03 Wax
- 04 Press Ingots

PMMA

A wide range of indications

Strictly match VITA Classic Shade Guide

Easy operation, stable and efficient work



Mono PMMA

Bloomden® Mono PMMA is a biocompatible class material suitable for making all types of removable denture bases. This material has significantly lower shrinkage.

Bending Strength 114 Mpa



Multilayer PMMA

Bloomden® Multilayer PMMA has a gradient layer transition across the disc, making it an aesthetic solution with high color stability and can be easily polished to a high gloss.

Bending Strength 112 Mpa



Flexible PMMA

Bloomden® Flexible PMMA is a kind of resin with high tensile and flexural strength, fatigue resistance, low friction, low moisture absorption, and excellent dimensional stability.

Bending Strength 96 Mpa

PMMA	Mono PMMA	Multilayer PMMA	Flexible PMMA
Vicker's hardness	32HV	20HV	32HV
Flexural strength	114MPa	112MPa	96MPa
E-Modulus	<E2771MPa	<E2771MPa	<E2771MPa
Residual monomer	<1%	<1%	<1%
Colors	Pink, Regular, yellow, Clear	Pink, Regular, yellow	Pink, Regular, yellow, Clear
Systems	98mm / 95mm / 92*75mm	98mm / 95mm / 92*75mm	98mm / 95mm / 92*75mm
Shades	A1 A2 A3 A3.5 A4 / B1 B2 B3 B4 C1 C2 C3 C4 / D2 D3 D4	A1 A2 A3 A3.5 A4 / B1 B2 B3 B4 C1 C2 C3 C4 / D2 D3 D4	A1 A2 A3 A3.5 A4 / B1 B2 B3 B4 C1 C2 C3 C4 / D2 D3 D4
Thickness	12mm / 14mm / 16mm / 18mm 20mm / 22mm / 25mm	12mm / 14mm / 16mm / 18mm 20mm / 22mm / 25mm	12mm / 14mm / 16mm / 18mm 20mm / 22mm / 25mm

PEEK

Easy to mill

Biocompatible

Best shape stability



Bending Strength 163 Mpa

PEEK has been used as an implant material in human medical repair (finger prostheses, intervertebral discs, hip prostheses) for over 35 years. The advantage of PEEK is the material's high biocompatibility, which allow it to fuse with bone. In addition, its material mechanism performance are similar to bone material properties.

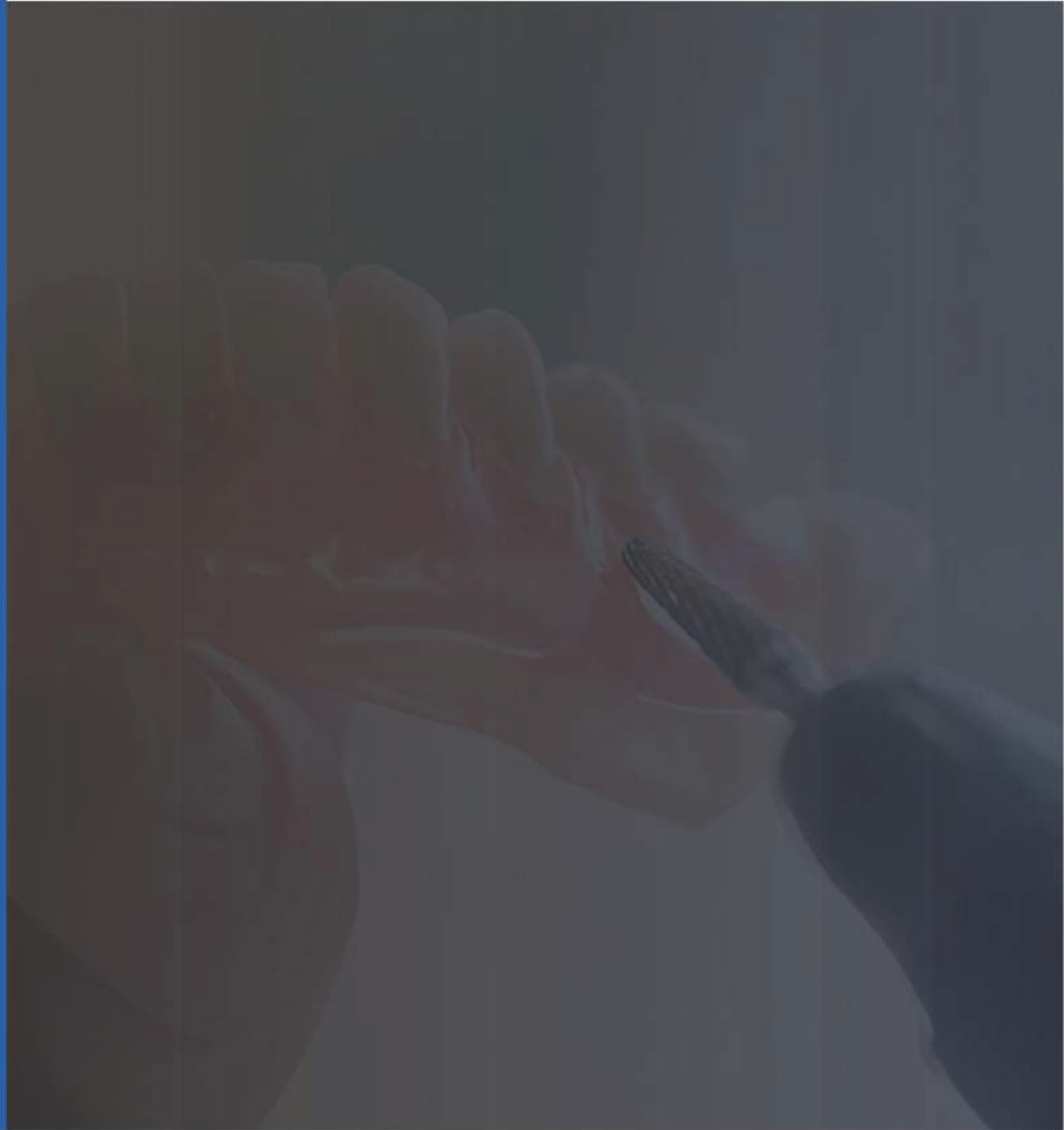
Characteristics	PEEK	TC-PEEK	Human bones	Zirconia	PMMA
Density	1.32	1.48	1.8	6.0	1.2
Bending strength	163	210	149	1200	75
Bending modulus	4.0	5.0	17	210	2.8

Characteristic comparison Table

	PEEK	Porcelain White	Tooth Yellow	Gum Color
Color				
Density	1.3	1.48	1.48	1.48
Bending strength	210	210	208	208
Bending modulus	4.0	5.0	4.9	4.9
Impact strength	200	160	165	165



Better trust Better smile



> DENTAL TOOLS

- 01 Milling Burs
- 02 Polishing Tools

Milling Burs



This dedicated dental milling burs have half round mucro. Range of milling is from 0.6mm to 2mm which is used for preliminary and high efficiency manufacture. 0.6mm milling burs is mainly used to mill the sculpture of groove, the elaborate progress. The undercut problem can be fixed easily due to the special length of milling burs and flexible milling.

Classificatic

Amann Girbach	Roland	Ines-Icores	Ines-Icores Shank 6.0mm
Φ0.6mm*Φ3*47*2F	Φ0.6mm*Φ4*50*2F	Φ0.6mm*Φ3*43*2F	Φ1.0mm*Φ6*43*2F
Φ1.0mm*Φ3*47*2F	Φ1.0mm*Φ4*50*2F	Φ1.0mm*Φ3*43*2F	Φ2.5mm*Φ6*43*2F
Φ2.5mm*Φ3*47*2F	Φ2.0mm*Φ4*50*2F	Φ2.5mm*Φ3*43*2F	

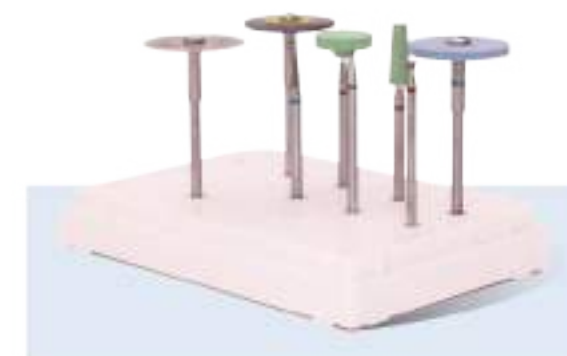
Sirona	VHF	Wieland	Arum
Φ0.5mm*Φ3*42*2F	Φ0.5mm*Φ3/4*35/40*2F	Φ0.6mm*Φ3*35*2F	Φ0.3mm*Φ4*45*2F
Φ1.0mm*Φ3*42*2F	Φ1.0mm*Φ3/4*35/40*2F	Φ1.0mm*Φ3*35*2F	Φ0.6mm*Φ4*45*2F
Φ2.0mm*Φ3*42*2F	Φ2.0mm*Φ3/4*35/40*2F	Φ2.5mm*Φ3*35*2F	Φ1.0mm*Φ4*45*2F
Φ2.5mm*Φ3*42*2F	Φ2.5mm*Φ3/4*35/40*2F	Φ0.6mm*Φ3*40*2F	Φ1.5mm*Φ4*45*2F
		Φ1.0mm*Φ3*40*2F	Φ2.0mm*Φ4*45*2F
		Φ2.5mm*Φ3*40*2F	Φ2.5mm*Φ6*50*2F

NOTE: All brand names listed belong to their respective owners and are only described and listed by Bloomden.

Polishing Tools

Compact Kit Technicians' Choice

Special compact kit for dental laboratory. It is mainly used for fast contouring and polishing of zirconia ceramic materials. It is also suitable for difficult-to-polish parts such as the occlusal surface, which is more precise and convenient. It can achieve high gloss without glazing.



Compact Collocation Best Chairside Assistant

It is mainly used for fast contouring and polishing of zirconia ceramic materials, and is suitable for difficult-to-polish parts such as occlusal surface. Simple and efficient operation. Only polishing is required to complete the restoration, which is suitable for clinical operation.





Better trust Better smile



> IMPLANT SYSTEM

- 01 Abutment
- 02 CAD/CAM Implant System Workflow

Abutment

- Bloomden provides high-quality titanium alloy abutments, manufactured using high-precision technology and designed specifically for chairside implantation, ensuring efficient and stable implantation results and excellent patient experience.
- Non-biotoxic & Corrosion-resistant
High-quality titanium alloy material with stable chemical properties and excellent biocompatibility
- High Precision
Made with high-precision CNC processing technology, abutments with precise size and shape



CAD/CAM Implant System Workflow



Complete Product Range

Covering various diameters and heights to meet various oral conditions and needs





Better trust Better smile

> ONLINE LAB SERVICE

- 01 Digital Online Service
- 02 Dental Lab Outsourcing



Digital Online Service

Bloomden provides professional dental digital design and more advanced dental CAD/CAM design service. We supply high quality same-day design service to worldwide dental laboratory, dentist and CNC machining center.



Experienced design crew

Bloomden has an excellent design crew that were all graduated from stomatology technology major. Our design team has seven years of working experience per capita and four years of foreign design to provide you with the highest design service.



High quality & high efficiency

Bloomden can design a crown in 10 minutes, ensuring to provide high quality, fine design, considerable price and outstanding customer satisfaction in the turnover period.



Various kind of design service



Model Designs



Abutment



Copings



Outback Crowns



Full Arch Implant Hybrids



Full Contour Crown bridge



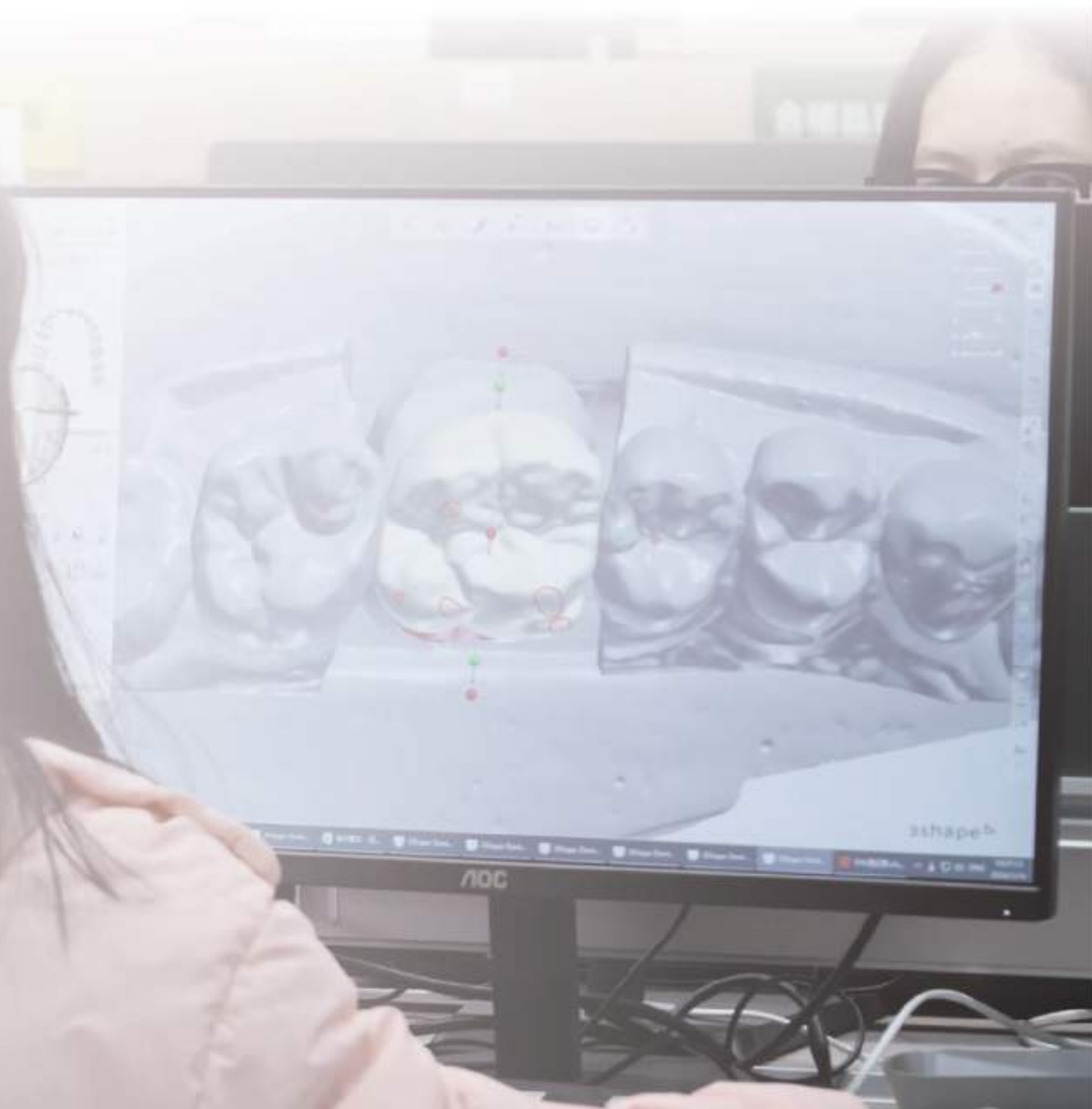
Full Contour Crown



Inlay Onlay Design



Veneers



Dental Lab Outsourcing

Bloomden Dental Milling Center in China is a full-serviced dental laboratory. We offer high-quality products and services for dentists at an affordable price. We are available worldwide.



Qualified Technicians
Team of Expert Technicians



Laboratory Excellence
Continuous Improvement



Advance Technology
Cutting-edge Solution



Consistent Quality
Industry-Leading
Quality Control



Personalized Service
Master Unique Needs
of Private Clinic



Knowledgeable Support
Highly Trained & Motivated Staff



Our Dental Milling Center Services Include



Single crown



Full arch hybrid with/without glaze



Implant crown



Preimplant abutment + Implant crown



Custom abutment + Implant crown

High-Precision Equipment

Using advanced CAD/CAM technology and CNC machines to ensure each dental prosthesis is accurate and high-quality.

Premium Materials

We use high-quality materials like Bloomden zirconia and ceramics for durable, natural-looking, and biocompatible prostheses.

Fast Delivery

Optimized production and an efficient team allow us to deliver products quickly.

Customized Solutions

Tailoring prostheses to fit each patient's unique oral structure for comfort and functionality.

Strict Quality Control

We ensure every prosthesis meets international standards through rigorous quality checks at every stage.

After-Sales Support

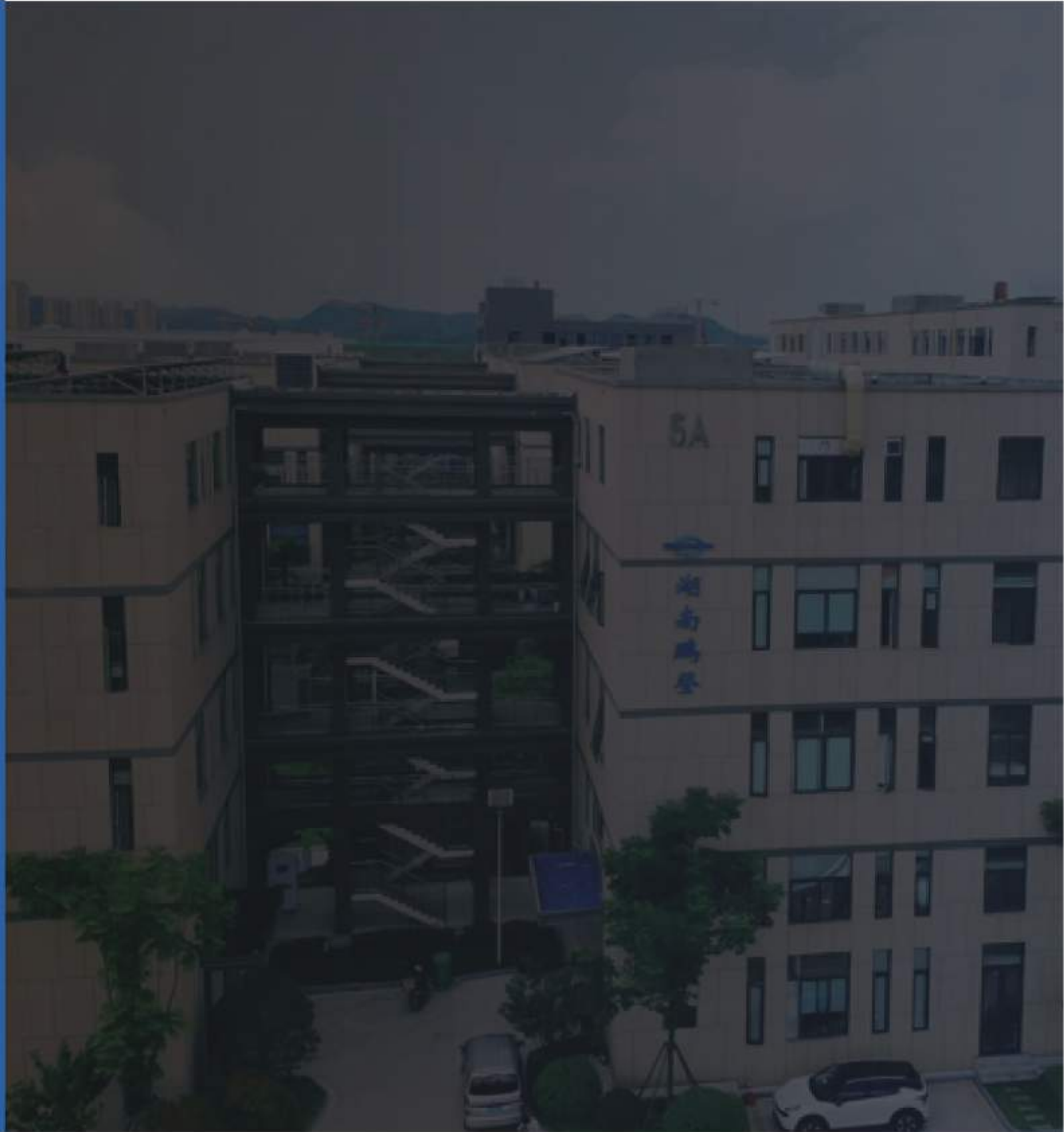
Providing excellent after-sales service and technical help to ensure long-term customer satisfaction.



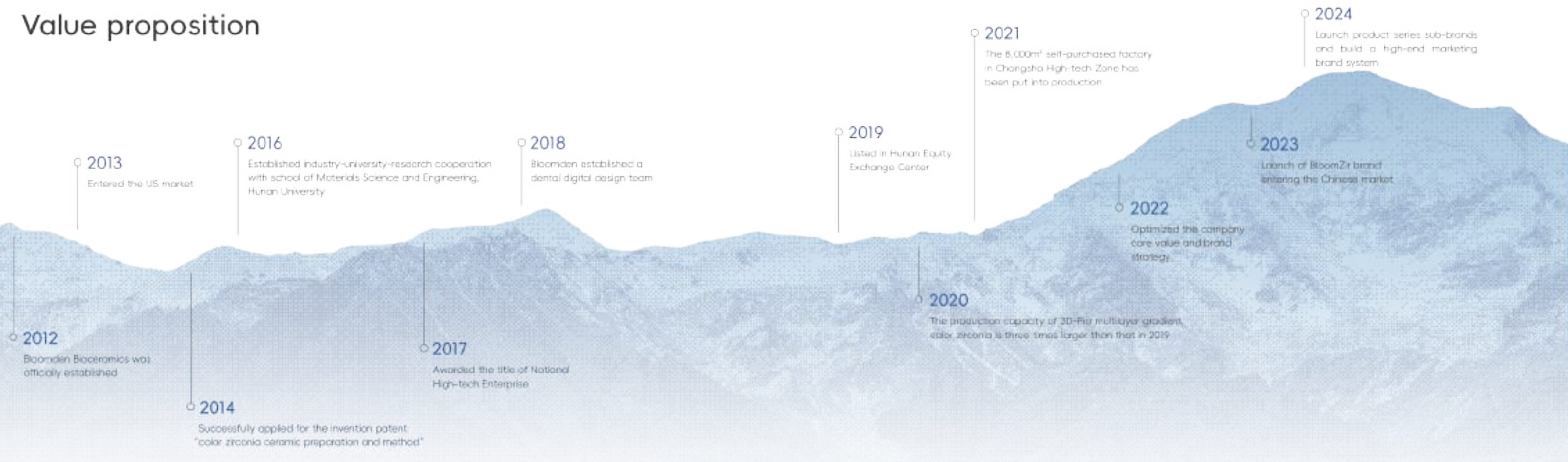
Better trust Better smile

> ABOUT BLOOMDEN

- 01 Value proposition
- 02 Company Culture



Value proposition



Bloomden Value Proposition

Honesty—Stable quality, Commitment adherence, Prices system

Stable quality: Through an abundant of analysis of digital dental data, a unique 3D natural translucency and strength degraded zirconia has been developed to meet the characteristics of oral restoration functions and aesthetics of all kinds of customers around the world, forming a standardized and customized product structure. The company has fine powder pressing system, isostatic pressing system, and other advanced manufacturing equipment and testing equipment, a professional factory quality management system, and R&D team for material.

Commitment adherence: Honesty is the fundamental value of all Bloomden employees and the base of cooperation with customers. Bloomden strictly abides by the spirit of the contract and doesn't harm the benefits of customers.

Price System: Bloomden has established a complete price system and distribution management system in various countries and regions to protect and create customer value.

Efficiency—Enterprises-Universities-Researches Integration factory, Fast response, Digital dental solutions

Enterprises-Universities-Researches Integration factory: The company has established Enterprises-Universities-Researches cooperation and exchanges with well-known material technologies domestically and internationally, as well as senior ceramic technology and dental experts. Bloomden has been committed to developing more advanced dental digital technology and zirconia bioceramic technology for dental industry.

Fast Response: The annual production capacity of consuming zirconium powder for zirconia blocks exceeds 200 tons, and strong inventory management can realize the rapid delivery of general items on the next day and customized items in 7 days.

Digital dental solutions: The company provides professional digital cad/cam dental solutions, which can realize one-stop digital chairside service for 3-hour dental restoration service, and provide 24-hour online design services for global dentists and technicians through the digital platform.

Accomplishment—VIP exclusive consultant, Growing up together, Planning regional markets together

VIP exclusive consultant: Provide professional Marketing Consultant service, assist distribution partners to analyze the characteristics of VIP customers, summarize target VIP customer image, help distribution duplicate more VIP customers, and organize specific customer development and maintenance.

Growing together: Support distribution partners to create team building and employee encouragement system, and facilitate customers through digital to achieve mutual success.

Planning regional markets together: Exclusive consultant provides relevant regional market analysis and industry development analysis. Work with our distribution partners to develop marketing and brand promotion strategies.



Company Culture

Bloomden Bioceramics(Hunan) Co., Ltd. (hereinafter referred to as Bloomden) is located in Changsha, Hunan. Founded in 2012, Bloomden is a technological company specializing in research and development, manufacturing, sales and service for dental CAD/CAM zirconia blocks, zirconia 3D printing, zirconia implants, dental restoration materials, digital dental technology & equipment.

Since its foundation, Bloomden has been awarded many honorary titles such as "High-tech Enterprise", "China Engineering Ceramics Council Membership", and "Hunan Province New Material Enterprise"; and has applied for more than 20 patents. Bloomden has its own headquarters operation center and advanced manufacturing facility in Changsha. The company has obtained a number of domestic and foreign medical device registration certificates such as CFDA, FDA, ISO13485, etc.

Strengthened with the material and science engineering college of Central South University, Hunan University, and Changsha University of Science & Technology, as well as senior engineered ceramic experts and dental experts domestically and internationally, the company has established Industry&College Research collaboration and exchanges. Bloomden has been contiguously dedicated to the technology and development of digital dental and zirconia bioceramics for dental restoration. Not only we can provide excellent dental zirconia products and other dental digital restoration materials, but also provide digital dental equipment, digital dental technology, and services.

Bloomden has established marketing all over the world. We built offices in the United States and have serviced customers in nearly 100 countries and regions such as the United States, the Middle East, Europe, Africa, South America, and Southeast Asia. Bloomden's brand strategy is centered on the marketing philosophy of from Customers to the Human Spirit. Our value is "Better Trust, Better Smile". The company complies with the principles of trust, efficiency, and success, and strives to cooperate with domestic and international dental customers for a win-win business. Bloomden is committed to jointly promoting the development of the dental industry, and making China brand and biomaterial technology world-renowned.



Nearly 200 distributors worldwide

The sales network comprises nearly 200 distributors in the United States, Russia, Europe, Spain, Mexico, India, the Middle East, etc.



More than 600 grade medical institutions

The products cover more than 600 grade medical institutions in Europe, the United States, Canada, South America, Australia, the Middle East, and Africa.



Participated in more than 100+ global exhibitions

Since its establishment 11 years ago, Bloomden has participated in various world-renowned exhibitions, such as IDS Cologne, AEEDC Dubai, LABYDAY American Exhibition, etc. more than 100 times.



Unanimous praise from global customers

Bloomden will visit our customers worldwide, provide quality services, and establish a solid relationship with customers.