

PRODUCT CATALOG

Technology Creates the Best Smile



Besmile Biotechnology Co., Ltd

Email: info@cdbesmile.com
Web: www.bsmdental.com
Tel: +86-28-85317108



WWW.BSM DENTAL.COM

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Aconia® Zirconia



Aconia® Zirconia



STRENGTH

EFFICIENCY

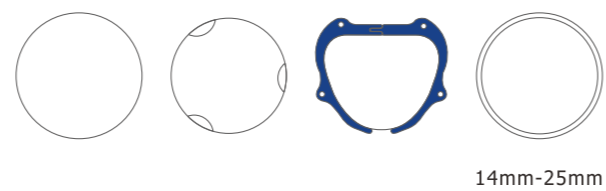
INDICATION

| | Veneer | Inlay & Onlay | Reduced crown | Full contour crown | Coping | Full contour anterior bridge (3unit) | Full contour bridge (3unit) | Full contour bridge (≤7unit) | Full contour bridge (≤14unit) | Abutment |
|---|--------|---------------|---------------|--------------------|--------|--------------------------------------|-----------------------------|------------------------------|-------------------------------|----------|
| TT (3D Multilayer & White) | | | | | | | | | | |
| HOT SHT-ML All in One (3D Multilayer) | | | | | | | | | | |
| SHT (Preshade & White) | | | | | | | | | | |
| ST (Preshade & White) | | | | | | | | | | |
| UPGRADED HT+ (White) | | | | | | | | | | |

TT-ML

Create the best smile with highest esthetics

- Most natural appearance
- Perfect option for anterior esthetic restoration
- Fast and easy processing
- Creatively maximized efficiency and esthetics



| Indication | | | | | |
|------------|---------------|---------------|--------------------|--------|---------------------------------------|
| | | | | | |
| Veneer | Inlay & Onlay | Reduced crown | Full contour crown | Coping | Full contour anterior bridge (3 unit) |



- Seamless transition, smooth gradient
- Extremely high incisal translucency provides lifelike replication of tooth enamel
- Bionic tooth-growing effect created by Aconia Vitalization Technology

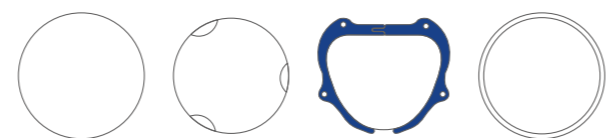
| Technical data | |
|----------------------------|---|
| Flexural strength(3-point) | 600-900 Mpa |
| Translucency | 46-49% |
| Vickers-hardness HV10 | 1300±50 |
| Density | >3 (g/cm ³) |
| Sintered density | >6.02 (g/cm ³) |
| Chemical solubility | <50(µg/cm ³) |
| Radioactivity | <0.1/Bq.g ⁻¹ |
| Fracture toughness | >3/(Mpa.m ^{1/2}) |
| CTE | (10.5±0.5)*10 ⁻⁶ K ⁻¹ |



SHT-ML

Create the best smile with highest flexibility

- All-in-one & One-for-all
- Seamless gradient in translucency, strength and shade
- Fast and easy processing
- Revolutionarily well-balanced combination of strength and translucency



14mm-25mm

| Indication | | | | | | | |
|---------------|---------------|--------------------|--------|---------------------------------------|--|-------------------------------|--------------------------------|
| | | | | | | | |
| Inlay & Onlay | Reduced crown | Full contour crown | Coping | Full contour anterior bridge (3 unit) | Full contour posterior bridge (3 unit) | Full contour bridge (≤7 unit) | Full contour bridge (≤14 unit) |



ALL IN ONE

All in One

All technologies integrated to one **Aconia** masterpieces made in one Multilayer indications applied by one SHT-ML

One for All

One SHT-ML to fulfill All your needs
Multilayer to replace all your inventories
Aconia creates all your smiles

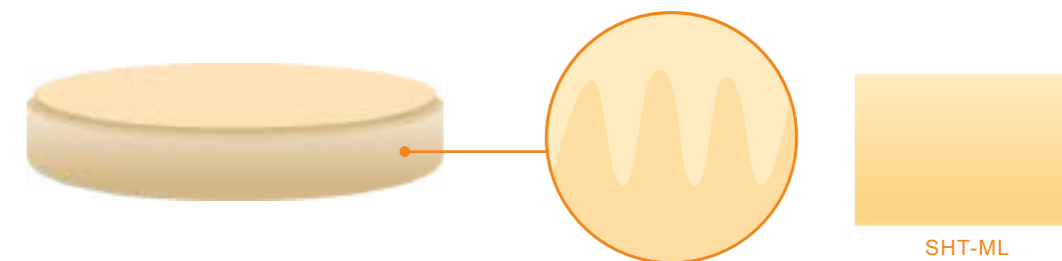
| Technical data | |
|----------------------------|---|
| Flexural strength(3-point) | 900-1100 Mpa |
| Translucency | 43-46% |
| Vickers-hardness HV10 | 1300±50 |
| Density | >3 (g/cm ³) |
| Sintered density | >6.02 (g/cm ³) |
| Chemical solubility | <50(µg/cm ³) |
| Radioactivity | <0.1/Bq.g ⁻¹ |
| Fracture toughness | >5/(Mpa.m ^{1/2}) |
| CTE | (10.5±0.5)*10 ⁻⁶ K ⁻¹ |

Aconia® 3D Multilayer Technology



Percentage above represents the thickness of each parts in the disc

- 3D - Shade+Strength +Translucency
- Excellent esthetic properties with integrated shade and seamless gradient
- Efficient, economical processing without the staining procedure
- Simplified Zirconia material selection through wide indication application options
- Simplified the nesting process
- Consistent color matching



| 3D Multilayer | Heights: | | | | | |
|---------------------|----------|--------|--------|-------|--------|---------|
| | 14mm | 16mm | 18mm | 20mm | 22mm | 25mm |
| 20% Incisal part | 2.8 mm | 3.2 mm | 3.6 mm | 4 mm | 4.4 mm | 5 mm |
| 20% Transition part | 2.8 mm | 3.2 mm | 3.6 mm | 4 mm | 4.4 mm | 5 mm |
| 50% Body part | 7 mm | 8 mm | 9 mm | 10 mm | 11 mm | 12.5 mm |
| 10% Cervical part | 1.4 mm | 1.6 mm | 1.8 mm | 2.0mm | 2.2mm | 2.5mm |

What is 3D Multilayer?

- Gradient Chroma:**
Increasing chroma from the top to bottom.
- Gradient translucency:**
Increasing translucency from bottom to top
- Gradient flexural strength:**
Increasing flexural strength from top to bottom

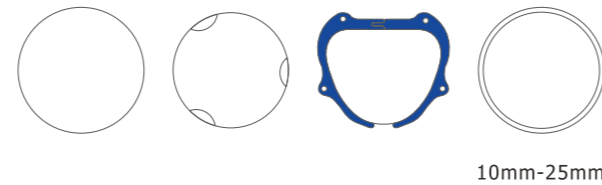
| 3D Multilayer | Translucency | Flexural strength |
|----------------------|--------------|-------------------|
| Aconia® TTML | 49% | 600MPa |
| Aconia® SHTML | 46% | 900MPa |
| | 43% | 1100MPa |

SHT-Preshade

Create the best smile with high efficiency

- Excellent strength combined with 46% translucency
- A wide range of indications for full contour restorations
- Reproduce Vita shades perfectly
- Efficiency and ideal results

| Technical data | |
|----------------------------|---|
| Flexural strength(3-point) | 1000±100 Mpa |
| Translucency | 46% |
| Vickers-hardness HV10 | 1300±50 |
| Density | >3 (g/cm ³) |
| Sintered Density | >6.02 (g/cm ³) |
| Chemical solubility | <50(µg/cm ³) |
| Radioactivity | <0.1/Bq.g ⁻¹ |
| Fracture toughness | >5/(Mpa.m ^{1/2}) |
| CTE | (10.5±0.5)*10 ⁻⁶ K ⁻¹ |



| Indication | | | | | | | |
|---------------|---------------|--------------------|--------|---------------------------------------|--|-------------------------------|--------------------------------|
| | | | | | | | |
| Inlay & Onlay | Reduced crown | Full contour crown | Coping | Full contour anterior bridge (3 unit) | Full contour posterior bridge (3 unit) | Full contour bridge (≤7 unit) | Full contour bridge (≤14 unit) |

ST-Preshade

Create the best smile with speed

- Outstanding strength of 1250MPa combined with ideal translucency
- A wide range of indications for restorations from coping to long-span bridge
- Reproduce Vita shades perfectly
- Stable and reproducible results

| Technical data | |
|----------------------------|---|
| Flexural strength(3-point) | 1250±100 Mpa |
| Translucency | 43% |
| Vickers-hardness HV10 | 1300±50 |
| Density | >3 (g/cm ³) |
| Sintered Density | >6.02 (g/cm ³) |
| Chemical solubility | <50(µg/cm ³) |
| Radioactivity | <0.1/Bq.g ⁻¹ |
| Fracture toughness | >5.5/(Mpa.m ^{1/2}) |
| CTE | (10.5±0.5)*10 ⁻⁶ K ⁻¹ |



| Indication | | | | | | |
|---------------|--------------------|--------|---------------------------------------|--|------------------------------|-------------------------------|
| | | | | | | |
| Inlay & Onlay | Full contour crown | Coping | Full contour anterior bridge (3 unit) | Full contour posterior bridge (3 unit) | Full contour bridge (≤7unit) | Full contour bridge (≤14unit) |

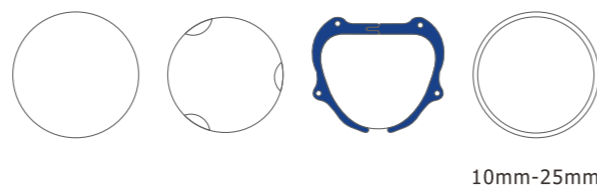
TT

Create the bright smile: the professional solution

- Highest translucency up to 49%
- Artistic foundation for individualized restoration
- Esthetic alternative to lithium disilicate with double strength



| Technical data | |
|----------------------------|---|
| Flexural strength(3-point) | > 700 Mpa |
| Translucency | 49% |
| Vickers-hardness HV10 | 1300±50 |
| Density | >3 (g/cm ³) |
| Sintered Density | >6.02 (g/cm ³) |
| Chemical solubility | <50(µg/cm ³) |
| Radioactivity | <0.1/Bq.g ⁻¹ |
| Fracture toughness | >3/(Mpa.m ^{1/2}) |
| CTE | (10.5±0.5)*10 ⁻⁶ K ⁻¹ |



| Indication | | | | | |
|------------|---------------|---------------|--------------------|--------|---------------------------------------|
| | | | | | |
| Veneer | Inlay & Onlay | Reduced crown | Full contour crown | Coping | Full contour anterior bridge (3 unit) |

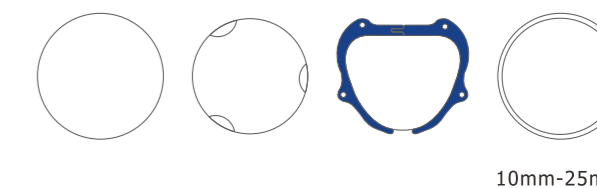
SHT

Create the vivid smile: the cost effective solution

- Outstanding translucency of 46%
- Remarkable strength with reliable durability
- Wide indications for full contour
- Easy and fast coloring



| Technical data | |
|----------------------------|---|
| Flexural strength(3-point) | 1000±100 Mpa |
| Translucency | 46% |
| Vickers-hardness HV10 | 1300±50 |
| Density | >3 (g/cm ³) |
| Sintered Density | >6.02 (g/cm ³) |
| Chemical solubility | <50(µg/cm ³) |
| Radioactivity | <0.1/Bq.g ⁻¹ |
| Fracture toughness | >5/(Mpa.m ^{1/2}) |
| CTE | (10.5±0.5)*10 ⁻⁶ K ⁻¹ |



| Indication | | | | | | | |
|---------------|---------------|--------------------|--------|---------------------------------------|--|-------------------------------|--------------------------------|
| | | | | | | | |
| Inlay & Onlay | Reduced crown | Full contour crown | Coping | Full contour anterior bridge (3 unit) | Full contour posterior bridge (3 unit) | Full contour bridge (≤7 unit) | Full contour bridge (≤14 unit) |

ST Create the universal smile: the classic solution

- Strong with good millability
- Wide indications from coping to long-span bridge
- Attractive translucency with outstanding strength 1250Mpa
- Easy and fast coloring

| Technical data | |
|----------------------------|---|
| Flexural strength(3-point) | 1250±100 Mpa |
| Translucency | 43% |
| Vickers-hardness HV10 | 1300±50 |
| Density | >3 (g/cm ³) |
| Sintered Density | >6.02 (g/cm ³) |
| Chemical solubility | <50(µg/cm ³) |
| Radioactivity | <0.1/Bq.g ⁻¹ |
| Fracture toughness | >5.5/(Mpa.m ^{1/2}) |
| CTE | (10.5±0.5)*10 ⁻⁶ K ⁻¹ |

| Indication | | | | | | |
|---------------|--------------------|--------|---------------------------------------|--|-------------------------------|--------------------------------|
| | | | | | | |
| Inlay & Onlay | Full contour crown | Coping | Full contour anterior bridge (3 unit) | Full contour posterior bridge (3 unit) | Full contour bridge (≤7 unit) | Full contour bridge (≤14 unit) |

HT⁺ Create the unwavering smile: the economical solution

- The extraordinary strength of 1400Mpa grants a high level of process safety
- Easy veneering & individualizing
- Best option for coping & abutment

| Technical data | |
|----------------------------|---|
| Flexural strength(3-point) | >1400 Mpa |
| Translucency | 42% |
| Vickers-hardness HV10 | 1300±50 |
| Density | >3 (g/cm ³) |
| Sintered Density | >6.02 (g/cm ³) |
| Chemical solubility | <50(µg/cm ³) |
| Radioactivity | <0.1/Bq.g ⁻¹ |
| Fracture toughness | >9/(Mpa.m ^{1/2}) |
| CTE | (10.5±0.5)*10 ⁻⁶ K ⁻¹ |

| Indication | | | | | | | |
|---------------|--------------------|--------|---------------------------------------|--|-------------------------------|--------------------------------|----------|
| | | | | | | | |
| Inlay & Onlay | Full contour crown | Coping | Full contour anterior bridge (3 unit) | Full contour posterior bridge (3 unit) | Full contour bridge (≤7 unit) | Full contour bridge (≤14 unit) | Abutment |

Standard & Master

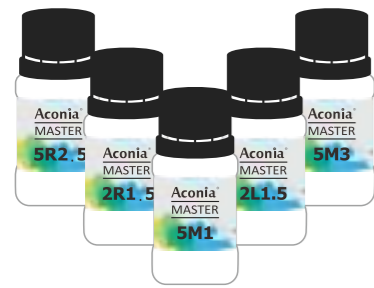


50ml

Standard

- Precisely matched to VITA* 16 color system
- Well-suited for both dipping and brushing (paint-on) methods
- Fast-coloring & no color difference between pontic and neighboring crowns
- Ideal results applied on Aconia white blanks by Aconia Coloring Technology

The terms marked with * are registered trademarks and/or brand names of the respective companies.



50ml

Master

- Precisely matched to VITA* 26 color system
- Well-suited for both dipping and brushing (paint-on) methods
- Fast-coloring & no color difference between pontic and neighboring crowns
- Ideal results applied on Aconia white blanks by Aconia Coloring Technology

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Artist



Artist
20ml

- Restore realistic, naturally lifelike appearance
- Reproduce rare and special colors
- Create esthetic art effect
- Enable individualized customization
- Start coloring process without preparing and mixing
- Deliver ideal results when applied on Aconia blanks



Special colors

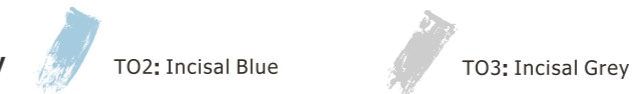
Magic value



Natural gingival



Incisal translucency



Art fissure

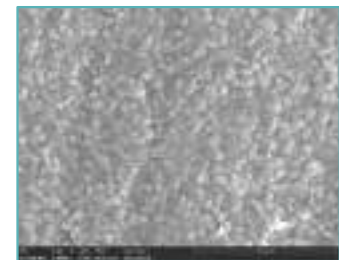


Zirconia Bonding Coating

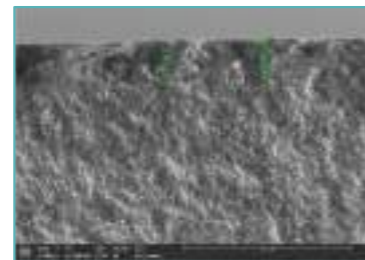


- Optimum bonding strength
- Ultra thin, super simple
- Suitable for all Zirconia restorations, especially ideal for zirconia veneers and inlays etc.
- Health and environment friendly

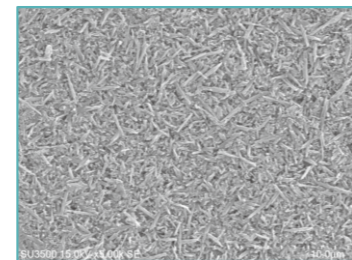
Good acid etching effect



Zirconia dense crystal structure
Electron micrograph (5000 times)

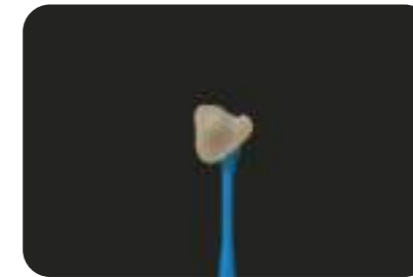


BSM Zirconia Bonding Coating thickness
Electron micrograph (2000 times)

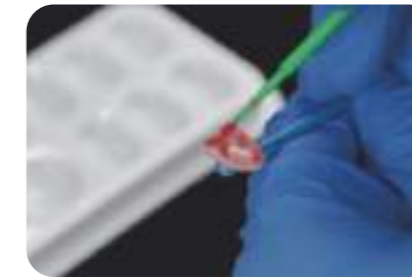


Zirconia surface Electron micrograph (5000 times)
after acid etching with BSM Zirconia Bonding Coating

Nanometer-sized ultra thin, super simple with visualized read indicator brushing method



Before brushing



While brushing



Finished

Technical Data

| Components | | | |
|---|---|-----------------------------|--|
| SiO ₂ , Al ₂ O ₃ , Li ₂ O, K ₂ O, Na ₂ O other oxides | | | |
| Specification & Parameters | | | |
| Packed in Syringe | 2g | Storage | In a clean and dry interior environment with non-corrosive gas and good ventilation. |
| Bonding Strength | With BSM Zirconia Bonding Coating | | ≥20MPa |
| CTE | (10.3±0.5)*10 ⁻⁶ K ⁻¹ | Flexural strength (3-point) | 95MPa |
| Transforming temperature | 588°C | Sintering temperature | 970°C |
| Chemical solubility | ≤100 (g/cm) | | |

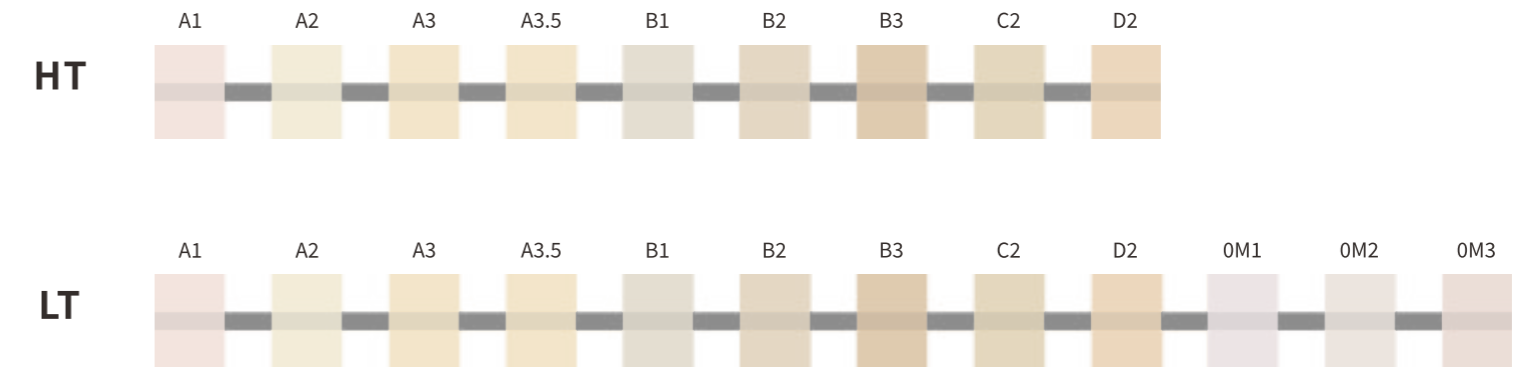


Lithium disilicate glass ceramic

- Superior strength with the biaxial flexural strength ≥ 450 MPa
- Realizing real aesthetics with natural opalescence& fluorescence
- Simple machinability
- An excellent minimally invasive restoration : ultra-thin veneer to 0.3 mm

| Indication | | | | | | |
|------------|---------------|---------------|---------------|------------------------|-------------------------|------------------------------|
| | | | | | | |
| Veneer | Inlay & Onlay | Reduced crown | Partial Crown | Full contour(anterior) | Full contour(posterior) | Full contour anterior bridge |

Available Shades



Technical Data

| | | | |
|------------------------------------|---|----------------------------|------------------------------|
| Components | SiO ₂ , Al ₂ O ₃ , Li ₂ O, K ₂ O, Na ₂ O other oxides | Chemical solubility | < 100 (g/cm) |
| Density | ≥ 2.2 (g/cm ³) | Specifications | 18.5*14.9*12.5、40*15*14 (mm) |
| Vickers hardness | 480-520 | | |
| Flexural strength(Triaxial) | ≥ 450 MPa | | |
| Fracture Toughness | >2.5 (MPa.m ^{1/2}) | | |
| CTE | $(9.7 \pm 0.5) \times 10^{-6} K^{-1}$ | | |
| Crystallization temperature | 820°C | | |



Besmile implant abutment solution includes the titanium premill, scanbody, analog, titanium disc, screwdriver sets and etc, using high-quality raw materials, with high-precision CNC and detection technology, which are trustworthy in terms of quality, accuracy, compatibility, and durability, achieving the outstanding aesthetic effect and restoration outcome.

ADVANTAGES



Best titanium material



Different systems available



ISO 13485 approved



High accuracy workmanship

Compatible with

| NO | Brands | System |
|----|-----------------|-----------|
| 1 | Dentium | SuperLine |
| 2 | OSSTEM | GS/TS |
| 3 | OSSTEM | SS |
| 4 | Straumann (ITI) | BL |
| 5 | Straumann (ITI) | TL |
| 6 | NobelBiocare | Replace |
| 7 | NobelBiocare | Active |
| 8 | DIO | SM |
| 9 | DIO | UF |
| 10 | Bego | Bego |
| 11 | Megagen | EzPlus |
| 12 | Dentsply | Xive |
| 13 | Dentsply | Ankylos |
| 14 | Zimmer | TSV |
| 15 | SIC | Invent |
| 16 | ICX | ICX |

Titanium Premill



Analog



Scanbody



Screw



Screwdriver Set



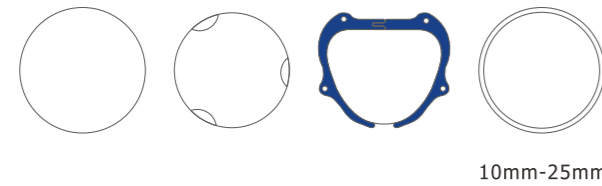
Titanium Disc



WAX



- Easy to mill
- High melting point
- Burn out completely without residue
- Compatible for making all male molds of oral tissue

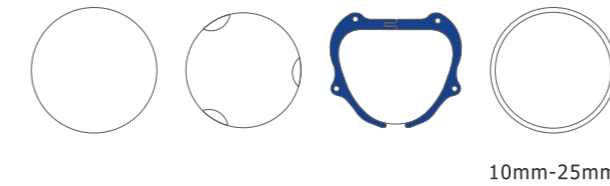


| Technical data | |
|--------------------|---------------------------|
| Material | Polymer |
| Color | Blue/White |
| Density | 0.89-0.93g/m ³ |
| Drop melting point | 106°C |
| Shore hardness | 50-60 ShoreD |

PMMA



- Excellent abrasion resistance
- Excellent finishing bright surface & polishing performance
- Excellent long-term shade stability and esthetics
- To fabricate fully and partially long-term temporary crown and bridge



| Technical data | |
|---------------------|------------------------------|
| Material | PMMA 100% |
| Color | A0 A1 A2 A3 Pink Transparent |
| Density | 1.19g/m ³ |
| Flexural strength | >125Mpa |
| Ash | <0.29% |
| Rate of contraction | <0.5% |



BSM-DP1000 Desktop Intelligent 3D Printer

BSM-DP1000 is specially developed for implant and fixed prosthetics applications. It adopts industrial-grade DLP technology with extremely high molding accuracy and efficiency, which is suitable for users who have high requirements for improving the precision and efficiency of product details.

Printing materials



Dental Model
Material



Gingiva
Material



Surgical-guide
Material

Printing models



Gingiva mask



Surgical-guide



Die model



Dental model

Where accuracy meets efficiency



Accuracy

-75 micron level ultra-high molding accuracy, small pixel size, thin layers, stable and consistent power, help achieve accurate reproduction and precise presentation of complex models



Efficiency

-DLP Stereolithography technology is used with speed advantages.
-Printing speed 25-30mm/hour
-The forming plate can print 80~100 teeth at a time
4 jaws can be printed at a time (flat laid)



Quality

-Industrial-grade DLP projector and motion modules.
-Convenient release film replacement method, effectively increasing the printing success rate and improving the forming speed.



Compact

-A compact and simple visual body
-A good human-computer interaction experience
-With fine, smooth and low distorted glass lens



Projector

-High quality LED lights&narrow-band spectrum ensuring stable curing.
-High-resolution digital light source ensuring excellent performance up to 10000 hours continuous operation.

Technical Data

| | | | |
|----------------------|-------------------------|---------------------|---|
| L*W*H | 380×350×620mm | Weight | 30kg |
| Pint volume | 144×81×80mm | Light source | DLP |
| XYZ accuracy | Z axis:5μm XY axis:75μm | Forming speed(50um) | 30mm/h |
| Projector resolution | 1920×1080 | Connectivity | 7" touch screen/USB |
| Layer thickness | 50~100um | Supportive language | Chinese, English |
| Supportive file | stl.obj | Humidity | <60% |
| Power supply | 220V//200W | Storage | Avoid direct sunlight, ventilated environment |
| Temperature | 10°C~30°C | | |

4-Axis Dental Milling Machine



BSM-400DW

Desktop Smart 4 Axis Dental Milling Machine

- **Safety:**Power-off protection;Error alarm
- **Intelligence:**Intuitive LCD touch screen;Multi-language:Chinese/English / Russian;Remote operation
- **Machinability:**Outstanding rigidity;High standard accuracy $\pm 0.01\text{mm}$
- **Open:**Multiple formats and materials;Modular processing, parameter optimization
- **High performance:**Good repetition accuracy $\pm 0.005\text{mm}$;Strong spindle with 80000 RPM;Clamp 3 glass ceramics or 2 titanium rods at one time
- **Efficiency:**6-compartment tool auto changer;Tool life management function

Technical Data

| Dimension(W/D/H) | Weight | Built-in burs | Linkage axis | Milling scope | Touch screen control |
|---|----------------|--|---|---|----------------------|
| 665mm*440mm*590mm | 60kg | 6 pieces | 4 Axis | A axis: the front and the reverse milling | LCD touch screen |
| Voltage | Air pressure | Rated power | Max. output powder | Milling accuracy | Max rotate speed |
| 220V | 0.65MPa | 800W | 1.2KW | $\pm 0.01\text{mm}$ | 80000RPM |
| Repetition accuracy | Cooling system | Automatic tool changer | Single processing quantity | Dry milling | Wet milling |
| $\pm 0.005\text{mm}$ | Air cooling | Positive | Glass ceramic:3 Units + Titanium 2 units + Zirconia 3 units | Positive | Positive |
| Dimension of material in block | | | | | |
| Glass ceramic:18.5*14.9*12.5、40*15*14(mm) | | | Zirconia:20*19*15.5、39*19*11.5(mm) | | |
| Burs type | | | | | |
| Tool kit for glass ceramic: 2.5mm、1.0mm、0.6mm | | Tool kit for metal material: 3.0mm、2.0mm、1.0mm | | Tool kit for zirconia: 2.0mm、1.0mm、0.6mm | |

Two milling modes realized on one machine

Dry & wet milling for variety of materials – Wide range of indications to meet the clinical application



Titanium Premill



Glass Ceramic



Zirconia

High performance-Clamp 3 glass ceramics or 2 titanium premill at one time



Precision-masters not only conventional restoration work, but also more complex indications including long bridges and abutments





BSM-420W

4-Axis Dental Milling Machine

BM-420W, 4-axis simultaneous dental milling machine, adopts open processing system with premium spindle and imported core parts. It highlights high precision milling and high reliability, easy to dealing with sophisticated metal materials like titanium, cobalt-chrome, and composites, which well match the needs of high-quality crown and bridge, abutment and so on.

Millable Materials



φ98mm Titanium Disc



Titanium Alloy Disc



Titanium Premill



Glass Ceramic

Millable Indications



Full contour(anterior)



Full contour(Posterior)



Full contour anterior bridge



Titanium crown bridge



Custom titanium abutment



Veneer



Inlay & Onlay

Convincing Features



Precise Milling

- Digital servo system with high resolution, $\pm 0.005\text{mm}$ repetition accuracy.
- $\pm 0.01\text{mm}$ installation accuracy for per spindle.
- $\pm 0.02\text{mm}$ milling accuracy; 0.3mm accuracy for Besmile glass ceramic



Stable operation

Heavy industrial quality and aerometal structure. The gantry structure and thermal expansion symmetric design ensure accuracy stability.



High Efficiency

- Premium spindle with 60,000RPM
- **Milling speed:** Titanium crown $\approx 30'$ (Besmile titanium disc TA2 14mm)
- Abutment $\approx 22'$ (Besmile titanium premill TC4)



Intelligent processing

- Smart CAM nesting strategy.
- Integrated PC with 9.7inch intelligent touch screen.
- Automatic changer tools with haptic tool detection and tool breakage monitoring.
- Automatically create efficient tool path, no sticky and easy to eliminate processing debris.

Technical Data

| | | | |
|---------------------------|--|----------------------------------|----------------|
| Dimension(W/D/H) | 800mm*570mm*1650mm | Remote tech assist | Support |
| Linkage axis | 4 axis | Temperature | 5°C-40°C |
| Spindle power | 1.8KW | Weight | 300KG |
| Cooling system | Automatic water-cooling spindle | Motor | AC Servo-motor |
| Holding quantity (square) | 10 units premill, 3 units glass ceramic | Max. Rotation speed | 60,000RPM |
| Holding quantity (round) | 3 units premill, φ98mm Titanium disc | Voltage/Power | 220V/3.7KW |
| Tool quantity | 6 pcs (round holder) / 6 pcs (square holder) | Tool length detection | Support |
| Tool type | Tool for metal | φ6mm*3mm, φ6mm*2mm, φ6mm*1mm | |
| | Tool for glass ceramic | φ6mm*2.5mm, φ6mm*1mm, φ6mm*0.6mm | |
| Air pressure | >0.65MPa | Wet milling | Support |



BSM-450D

4 Axis Dental Milling Machine

Besmile has ungraded 4 axis BM-430D dental milling machine with a high-performance open system, which can meet the diverse needs of customers and ensure the long-term stability and accuracy.

- High speed data processing and analyzing NC system
- Compatible processing system
- Max.40,000RPM of the precise motorized spindle
- High-resolution step system
- Automatic changing and calibrating of the 4 milling burs
- Visualized processing

Technical Data

| | | | |
|----------------------|--------------------------------|-----------------------------------|--|
| L*W*H | 600mm*470mm*650mm | Weight | 70kg |
| Built-in burs | 3(2mm、1mm、0.6mm) | Linkage axis | 4 |
| Voltage / Power | 220V // 850W | Air pressure | >0.5MPa |
| Temp. | 5°C~40°C | Motor type | Step-motor |
| Millable Category | Zirconia, PMMA, Wax, PEEK etc. | Millable Prosthesis | single crown, long bridge, inlay onlay, veneering etc. |
| Milling accuracy | ±0.01mm | Automatic tool-length measurement | Positive / √ |
| Cooling system | Air-cooled spindle | Vacuuming system | Mute vacuuming* |
| Remote assistance | Positive / √ | Dry milling | Positive / √ |
| Touch-screen control | 8" LED touch screen | Wet milling | Negative / X |

*match according to customer demand.

Millable Material



Zirconia

PMMA

Wax

Wood

PEEK

Millable Restoration



Anatomic crown

Coping

Inlay/Onlay

Veneer

Crown Bridge

Abutment

5-Axis Dental Milling Machine



BSM-520D

5 Axis Dental Milling Machine

The 5 Axis dental milling machine is developed independently by Besmile, which possesses high-precision mechanical structure and high-resolution control system, providing a brand new operation experience for users.

- Stable and reliable performance
- An extensive service-life
- Automatic 4 burs changing system
- Integrative positioning module
- Accuracy up to 5μm of servo-control system
- Real-time monitoring by the sound-sensing alarm
- Remote control & service system

Technical data

| | | | |
|-------------------|---|-----------------------------------|---|
| L*W*H | 680mm*570mm*780mm | Weight | 130kg |
| Built-in burs | 4(2mm、1mm、0.6mm) | Linkage axis | 5 |
| Voltage / Power | 220V / 3.9Kw | Air pressure | >0.65MPa |
| Temp. | 5°C~40°C | Motor type | Servo-motor |
| Millable Category | Zirconia, PMMA, Wax, PEEK etc. | Millable Prosthesis | single crown, long bridge, inlay, onlay, veneering etc. |
| Milling accuracy | ±0.005mm | Automatic tool-length measurement | Positive / √ |
| Cooling system | Full automatic circulating water-cooled spindle | Vacuuming system | Mute vacuuming* |
| Dry milling | Positive / √ | Remote assistance | Positive / √ |
| Wet milling | Negative / X | Touch-screen control | 9.7" LED touch screen |

*match according to customer demand.

Millable Material



Zirconia

PMMA

Wax

Wood

PEEK

Millable Restoration



Anatomic crown

Coping

Inlay/Onlay

Veneer

Crown Bridge

Abutment

Frame

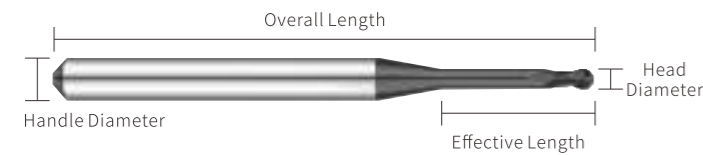
Splint

Milling Burs



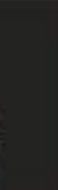
MILLING BURS: Uncoated & Diamond

- Excellent durability for the milling cutters
- Economical working- cost - benefit ratio
- With diamond coating for precise milling results and smooth surfaces.




More brands available upon request: Roland, VHF, Imes-icore etc.






BSM-400DW

| Glass Ceramic Milling Bur | Head Diameter | Handle Diameter | Overall Length | Effective Length |
|---|---------------|-----------------|----------------|------------------|
|  | 2.5 (R1.25) | 4 | 45 | 16 |
|  | 1 (R0.5) | 4 | 45 | 10 |
|  | 0.6(R0.3) | 4 | 45 | 10 |




BSM-400DW

| Metal Milling Bur | Head Diameter | Handle Diameter | Overall Length | Effective Length |
|---|---------------|-----------------|----------------|------------------|
|  | 3 (R1.5) | 4 | 50 | 15 |
|  | 2 (R1.0) | 4 | 50 | 12 |
|  | 1 (R0.5) | 4 | 50 | 8 |



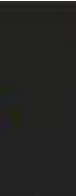
BSM-420W

| Glass Ceramic Milling Bur | Head Diameter | Handle Diameter | Overall Length | Effective Length |
|---|---------------|-----------------|----------------|------------------|
|  | 2.5 (R1.25) | 6 | 40 | 15 |
|  | 1 (R0.5) | 6 | 40 | 13 |
|  | 0.6(R0.3) | 6 | 40 | 10 |




BSM-450D

| Zirconia Milling Bur | Head Diameter | Handle Diameter | Overall Length | Effective Length |
|---|---------------|-----------------|----------------|------------------|
|  | 2 (R1.0) | 4 | 50 | 16 |
|  | 1 (R0.5) | 4 | 50 | 16 |
|  | 0.6(R0.3) | 4 | 50 | 8 |



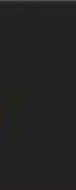

BSM-400DW

| Zirconia Milling Bur | Head Diameter | Handle Diameter | Overall Length | Effective Length |
|---|---------------|-----------------|----------------|------------------|
|  | 2 (R1.0) | 4 | 50 | 16 |
|  | 1 (R0.5) | 4 | 50 | 16 |
|  | 0.6(R0.3) | 4 | 50 | 8 |

BSM-420W

| Metal Milling Bur | Head Diameter | Handle Diameter | Overall Length | Effective Length |
|---|---------------|-----------------|----------------|------------------|
|  | 3 (R1.5) | 6 | 50 | 15 |
|  | 2 (R1.0) | 6 | 50 | 12 |
|  | 1 (R0.5) | 6 | 50 | 10 |

BSM-520D

| Zirconia Milling Bur | Head Diameter | Handle Diameter | Overall Length | Effective Length |
|---|---------------|-----------------|----------------|------------------|
|  | 2 (R1.0) | 4 | 50 | 16 |
|  | 1 (R0.5) | 4 | 50 | 16 |
|  | 0.6(R0.3) | 4 | 50 | 8 |
|  | 1.0(Flat) | 4 | 50 | 14 |



BSM-FC30 Fast Zirconia Sintering Furnace

BSM-FC30 zirconia fast sintering furnace is specially designed for completing the high-temperature sintering for all zirconia materials. It adopts unique "Sandwich" thermal insulation technology, achieving long-lasting heat preservation and energy saving. And It offers customers with easy & efficient sintering experience with one-button operation and 3 hour fast sintering, and at the same time guarantees excellent sintering performance with its use of high-purity silicon carbide heating elements and circular-shape heating design.

Technical Data

| | | | |
|-----------------------------|--------------------------------------|------------------------------------|---------------------------|
| Application area | Zirconia sintering | Shortest sintering time | 3h(Cooling time included) |
| Width*depth*height | 340mm*700mm*490mm | Number of heating elements | 4 units |
| Weight | 55kg | Power supply | 220V/50Hz |
| Sintering space | φ90mm*50mm | Rated powder | 3kW |
| Sensor type | High - Precision type B thermocouple | Max. withstand temperature | 1600°C |
| Number of sintering trays | 1 | Working temperature | ≤1550°C |
| Diameter of sintering trays | 74mm | Temperature control accuracy | ±3°C |
| Type of heating element | High purity silicon carbide | Operation | 7"color touch screen |
| Max customized programs | 100 | Heating rate | ≤50°C/min |
| Heating type | Fast&Standard | Max.number of sintered resorations | 25 single crwons |



Pure and energy saving

- High purity silicon carbide heating elements
- Unique "Sandwich" thermal insulation technology



Efficient and fast sintering

- High powered fast heating
- Intelligent two-stage cooling procedure
- Shortest sintering time:in 3 hours(including cooling time)



Homogeneous temperature distribution

- PID intelligent temperature control technology
- A cylinder structure of the furnace chamber with heating elements distributed in a circular shape



Automatic lifting

- Achieving easy loading and unloading



Customized sintering available

- With more than 100 sintering program memory



Multiple sintering modes

- Supporting fast and standard sintering



Sintering Tray



Silicon Carbide Heating Element



Pure Zirconium Beads



BSM-S30 Standard Zirconia Sintering Furnace

BSM-S30 zirconia sintering furnace has been designed for processing zirconia restorations with a high degree of stability and efficiency. It adopts high-purity heating elements and homogeneous temperature distribution technology, providing reliable sintering output for single restorations, frameworks and bridges. The "Sandwich" thermal insulation design guarantees precise temperature control throughout the whole sintering process. The clear and intuitive user interface gives users a comfortable operating experience.

- Maximum units per time ≥ 80
- More than 100 sintering program positions stored
- High-purity silicon molybdenum heating element
- High-performance insulation materials
- High-performance motors, steady operation
- True color touch screen
- Heating elements are U shape placed
- PID Intelligent temperature control

Technical Data

| | | | |
|----------------------------|--|------------------------------|--------------------------------------|
| Dimension(W.D.H) | 400mm*590mm*870mm | Operation | 7" touch screen |
| Sintering Space | $\phi 110\text{mm} \times 90\text{mm}$ | Weight | 85kg |
| Number of heating elements | 4 | Sensor | High Precision type B thermocouple |
| Heating Element | High-purity silicon molbdenum | Temperature control accuracy | $\pm 3^{\circ}\text{C}$ |
| Power Supply | 220V/50Hz | Heating rate | $\leq 10^{\circ}\text{C}/\text{min}$ |
| Working Temperature | $\leq 1600^{\circ}\text{C}$ | Rated Power | 3kW |
| Shortest Sintering Time | 3.5h(Cooling time included) | Heating Type | Standard |



Powerful

- Excellent and consistent sintering results
- Dependable performance on sintering single restorations, framework and bridges



Precise temperature control

- Homogeneous distribution of heat in the firing chamber ensure high-quality sintering outcomes
- PID intelligent temperature controlling system to control temperature difference less than 3°C



Easy to use

- Clear and intuitive user interface
- Well-arranged function buttons



Large capacity

- Stacking two sintering tray ensures simultaneous sintering of up to 60 units
- Up to 100 programs pre-installed to ensure diversified sintering needs



Pollution free

- High-purity silicon molybdenum heating element
- High-performance insulation material



Stable & Reliable

- Stable and low noise operation
- High-performance motor and belt
- Consistent shrinkage
- No deformation or inclusions



Sintering Tray



Silicon Molybdenum Heating Element



Pure Zirconium Beads

Easy Operation

- With medium consistency, the paste will not fall apart or agglomerate easily.
- The paste can be applied evenly on the surface of zirconia and glass ceramics restoration.

Ultimate aesthetics

- The fluorescence component in the paste gives lifelike effect on the restorations.
- With the brightening component, coloring and glazing can be done at one time.



| Art.No. | Shade | Application |
|---------|-------------|---|
| BSC 1 | A | Mainly composed of red, yellow and little gray, used for dentin shade. |
| BSC 2 | B | Mainly composed of dark yellow, little red and little gray, used for dentin shade. |
| BSC 3 | C | Mainly composed of gray and little yellow, used for dentin shade. |
| BSC 4 | D | Mainly composed of yellow, gray and little red, used for dentin shade. |
| BSC 5 | Glaze | Provides gloss with transparency to the surface of the restoration. |
| BSC 6 | Yellow | Yellow based with little red. Applied to give a yellowish tint, can be mixed with the 4 dentin shade. |
| BSC 7 | Brown | Composed of brown and gray. Applied to reproduce dark brown stain. |
| BSC 8 | Light Brown | Composed of yellow, little red and little gray. |
| BSC 9 | Black | Applied to decrease the value of the chroma, can be mixed with the 4 dentin shades. |

| Art.No. | Shade | Application |
|---------|-----------------|---|
| BSC 10 | Blue | Mainly applied to incisal part, to increase translucency. |
| BSC 11 | White | Applied to create a crack effect, also for an opaque effect. |
| BSC 12 | Pink | Applied to gingival area, also can be mixed with the 4 dentin shades. |
| BSC 13 | Orange | Yellow based with a little red and gray shade. |
| BSC 14 | Terracotta | Mainly composed of yellow and red, with a little black shade, applied to fissure. |
| BSC 15 | Purple-gray | Purple based with a little gray shade, applied to incisal part, to increase the translucency. |
| BSC 16 | Red | Applied to gingival area. |
| H | Blending liquid | Applied to adjust the paste consistence. |



| | |
|------------------------|--|
| CTE | (25°C-500°C) $(10.3 \pm 0.5) \times 10^{-6} \text{K}^{-1}$ |
| Chemical stability | $< 100 \mu\text{g}/\text{cm}^2$ |
| Storage | Room Temperature |
| Product specifications | Paste: 4g/bottle Blending liquid: 25ml/bottle |
| Strength | $> 50 \text{MPa}$ |

Indications

- veneering ceramics
- glass ceramics
- zirconium oxide (frameworks and full-contour restorations)



Grinding & Polishing Tool

Specially designed for all ceramics

It is mainly applied to do the occlusal adjustment, pre-polishing and high-gloss polishing for zirconia and glass ceramics.



Coarse grinding tool



Polishing tool



Fine grinding tool

| Product Category | Specification (MM) | Particle Size | Rotation speed (RPM) | Max Rotation speed(RPM) |
|----------------------|--------------------|---------------|----------------------|-------------------------|
| Coarse grinding tool | 13*2 | Medium | 10000-15000 | 20000 |
| | 13*2 | Medium | 10000-15000 | 25000 |
| Fine grinding tool | 4*13 | Thin | 10000-15000 | 20000 |
| | 5*13 | Thin | 10000-15000 | 25000 |
| | 3.5*11 | Thin | 10000-15000 | 20000 |
| | 6.5*2 | Thin | 10000-15000 | 25000 |
| Polishing | 26*2 | Ultra-thin | 10000-15000 | 20000 |
| | 5*16 | / | 10000-15000 | 20000 |

