

About Besmile

Besmile is a global digital solutions provider for restorative and implant dentistry.

We offer integrated systems—premium CAD/CAM materials, advanced equipment, and precision implant systems—designed to streamline workflows and ensure reliable results.

All core products are developed and manufactured in-house, ensuring consistent quality and continuous innovation.

Trusted by over 1,000 partners in more than 100 countries, we empower dental professionals to create confident, lasting smiles.

Technology creates the best smile.



Chengdu Besmile Medical Technology Co.,Ltd.,

www.bsmdental.com

T: +86-28-85317108

E: info@cdbesmile.com

Besmile Dental America Inc.

20311 Valley Blvd, Suite I, Walnut, CA 91789

T: (626)921-5798

E: sales@bsmdentalus.com

Contact Us



3D Aconia[®] Master

Mastering
Aesthetics and
Function in
Perfect Balance



Why Choose 3D Aconia Master

3D Aconia Master, the next generation of Aconia 3D Multilayer, redefines multilayer zirconia with superior performance in aesthetics, function, and stability. It is ideal for the efficient fabrication of monolithic aesthetic crowns to wide-span bridges, including implant-supported long bridges.

Mastering Aesthetics and Function in Perfect Balance



Durability Redefined:

With flexural strength of 800 - 1200 MPa and fracture toughness $\geq 5.8 \text{ MPa}\cdot\text{m}^{1/2}$, 3D Aconia Master ensures reliability for high-load restorations, minimizing fractures and rework.

Lifelike Aesthetics:

A seamless gradient in translucency (51%-43%) replicates the natural beauty of teeth.

Consistent Aesthetic Results



A flexible sintering range of 1520°C to 1560°C gives you the freedom to achieve stable and reliable outcomes every time.

Glaze & Go

No staining needed—accurate shading and a seamless 3D effect guarantee natural-looking restorations.



Peace of Mind



Low deformation and high fracture toughness ($\geq 5.8 \text{ MPa}\cdot\text{m}^{1/2}$) ensure accurate, durable bridges—minimizing fractures and reducing case rework.

Efficient Sintering

It achieves high-speed sintering with the BSM-FC30 and its specific sintering curve—enhancing efficiency and reducing delivery time.

Perfectly Matched Masking Solution

Pair with Aconia V1 Opaque Liquid for customized shading solutions that seamlessly mask implant abutments while delivering natural aesthetics.

3D Multilayer Technology



- 10 yrs of R&D
- 10,000+ Tests
- U.S. Patented

Challenges You Often Face

- Too many SKUs. Too much inventory.
- Visible shade steps. Uneven layering.
- Deformation. Unstable results.

How 3D Aconia Master Helps

- One material. Many indications.
- A seamless gradient.
- Near-zero deformation. Consistent performance.

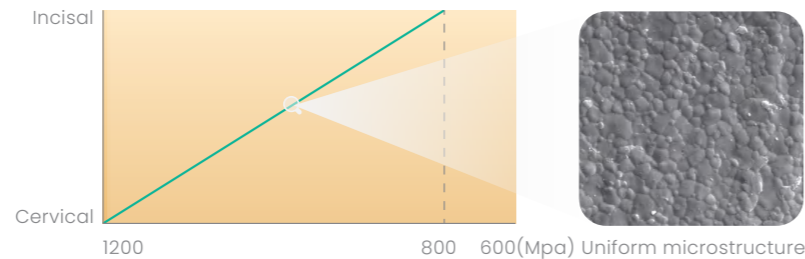
How it works

Interleaved Layer Structure

3D Aconia Master Multilayer



✓ Seamless gradient

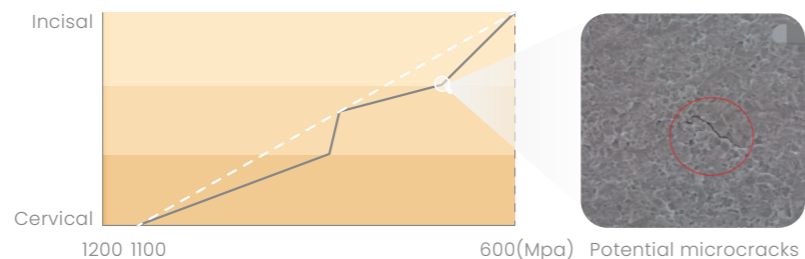


✓ Uniform strength distribution

Conventional Structure



✗ Uneven color transition

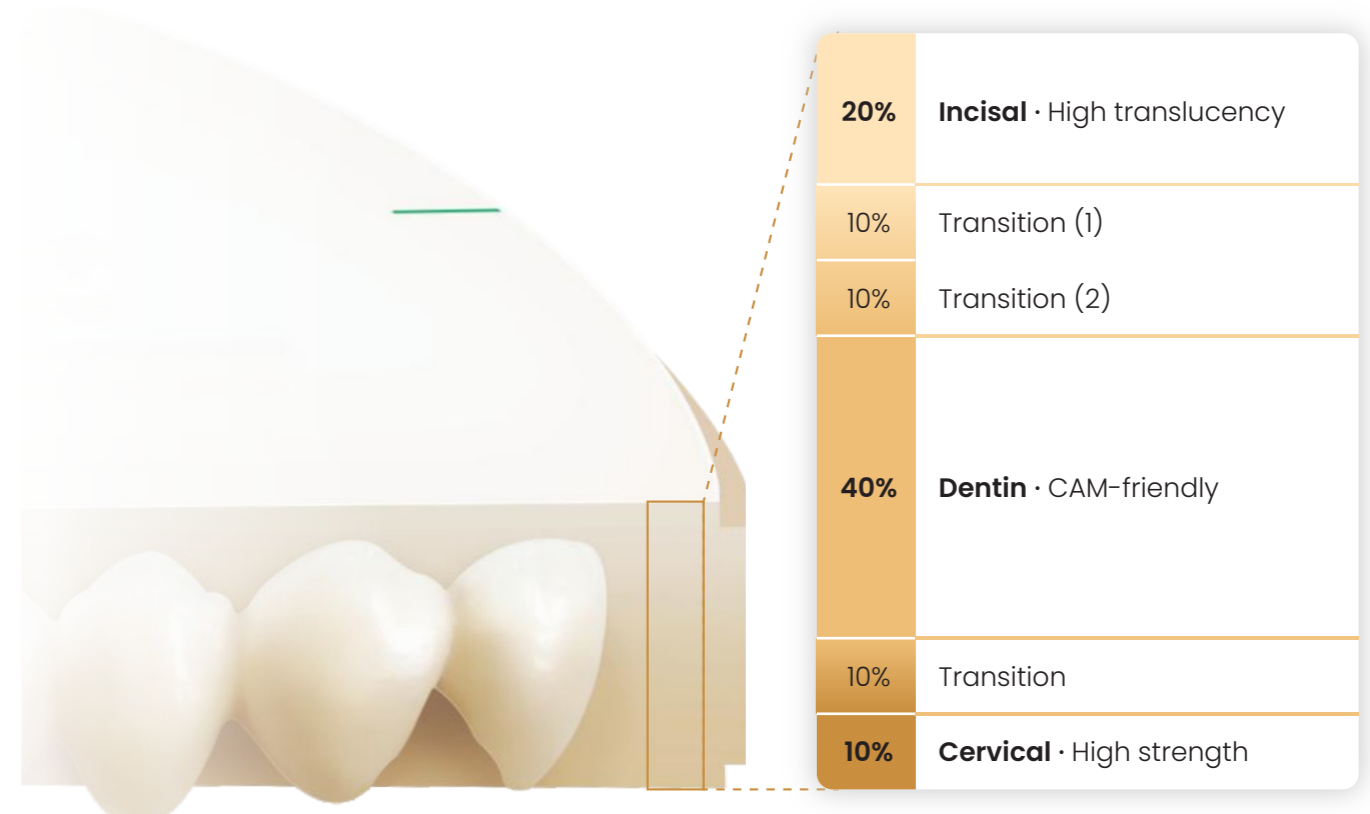


✗ Strength decreases at the interlayer zone

Our patented interleaved technology upgrades conventional multilayer zirconia, significantly enhancing interlayer bonding and shear resistance.

Optimized powder formulations and precise blending ratios deliver higher strength, better translucency, and more uniform shrinkage.

Look into Details



Indications

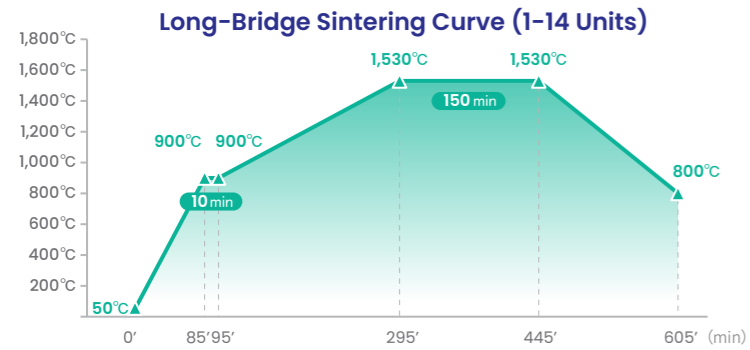
- Inlays/Onlays
- Copings
- Full contour crowns
- Veneer
- Full contour bridges (≤14 units)
- Implant-supported restorations

Technical Parameters

System	98mm
Shade	A1, A2, A3, A3.5, A4, B1, B2, B3, B4, C1, C2, C3, C4, D2, D3, D4, 0M1, 0M2, 0M3
Disc thickness(φ98mm)	12/14/16/18/20/22/25/28*/30*
Flexural strength(3-point)	800-1200MPa
Translucency	43-51%
Vickers-hardness HV10	1250-1350
Sintered density	>6.02 (g/cm³)
Fracture toughness	≥5.8(MPa.m ^{1/2})

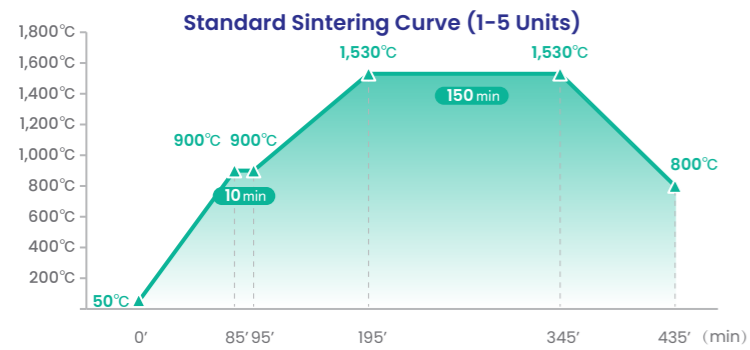
*Customized production required. Please consult your local sales representative for details.

Sintering Curve



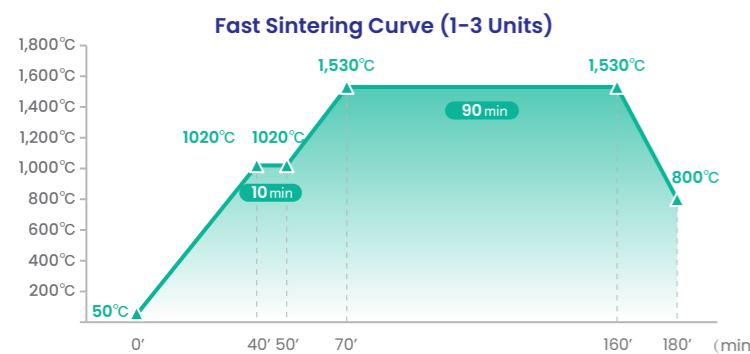
Long-Bridge Sintering Parameters (1-14 Units)

Step	Initial temperature(°C)	Final temperature(°C)	Time(min)	Heating rate(°C/min)
1	50	900	85	10
2	900	900	10	Holding
3	900	1530	200	3
4	1530	1530	150	Holding
5	1530	800	160	-5
6	800			Natural cooling



Standard Sintering Parameters (1-5 Units)

Step	Initial temperature(°C)	Final temperature(°C)	Time(min)	Heating rate(°C/min)
1	50	900	85	10
2	900	900	10	Holding
3	900	1530	100	6
4	1530	1530	150	Holding
5	1530	800	90	-8
6	800			Natural cooling



Fast Sintering Parameters (1-3 Units)

Step	Initial temperature(°C)	Final temperature(°C)	Time(min)	Heating rate(°C/min)
1	50	1020	40	24
2	1020	1020	10	Holding
3	1020	1530	20	25
4	1530	1530	90	Holding
5	1530	800	20	-36
6	800			Natural cooling

*Best results are achieved when used with the BSM FM30 furnace in Standard Mode.

Digital Workflow

Unparalleled Efficiency, Unimaginable Ease

Scanning

The BSM intraoral scanner M5 Pro collects visualized and simultaneous information from the patients within 10 minutes.

Designing

The Smile Cloud design platform (<https://www.bsmsmilecloud.com/>) will provide the design service you need with fascinating design results.

Selecting Materials

3D Aconia Master delivers superior performance with excellence in aesthetics and function.

Milling

The BSM-500D is a 5-axis dry milling machine that produces high-precision zirconia restorations with 5µm milling accuracy.

Sintering

The BSM-FC40 zirconia sintering furnace offers fast sintering with a capacity of up to 80 crowns sintered at once.

Finishing

Artamic Stain/Glaze offers a wide range of shades for customization and characterization, delivering aesthetics and quality in restorations.

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4



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