

3M Science.
Applied to Life.™



3M
Lava™ Esthetic

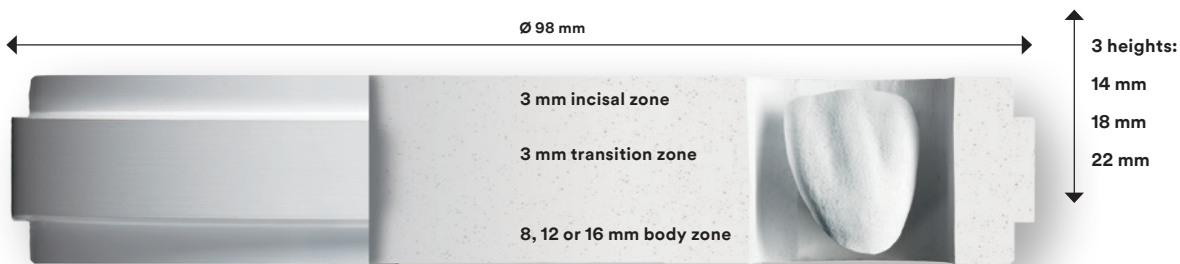
Esthetic Fluorescent Full-Contour Zirconia

A2 Gradient shaded
Incisal side

**Esthetics simplified.
Just glaze and go.**

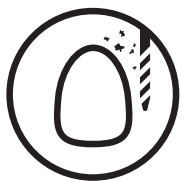
Productivity and high Now one disc has it all.

3M™ Lava™ Esthetic Fluorescent Full-Contour Zirconia is a new gradient pre-shaded cubic zirconia disc featuring a one-of-a-kind new shading technology: With its unique four shading elements formulation, it is the first pre-shaded zirconia offering inherent fluorescence for all shades. With the new shading technology employed, the color gradients built into Lava Esthetic zirconia truly match the VITA® Classic shades enabling you to produce highly esthetic full-contour restorations in a simple mill-sinter-glaze process.



Available in Bleach, A1, A2, A3, A3.5, B1, C1, D2 with easy positioning of the restoration in the disc due to its simple layer concept: The two upper zones are always 3 mm thick, regardless of the disc height. Only the thickness of the body zone varies.

Get on the fast track to enhanced productivity.



Mill

98 mm disc format with step fitting open systems for dry milling of zirconia.



No shading liquids.



No drying time.



Sinter at 1500°C

Total sinter cycle time: 5.2 hours



Glaze

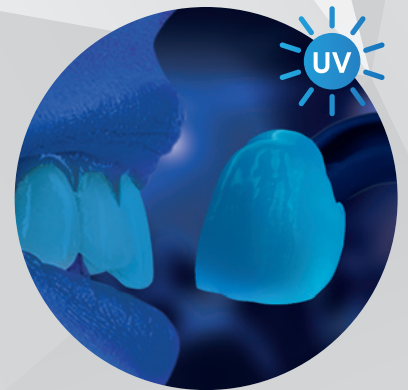
Inherent fluorescence:
No special fluorescent glaze needed.

esthetics.

True color match to VITA® Classic shades.



3M™ Lava™ Esthetic Zirconia
A2 crown – sintered and glazed.



Sintered 3M™ Lava™ Esthetic
Zirconia A2 crown under UV light.

First zirconia with inherent
toothlike fluorescence.

- Gradient pre-shaded with true color match to VITA® Classic shades
- First zirconia with inherent toothlike fluorescence
- Optimized translucency for high esthetic full-contour restorations
- Cubic zirconia with high strength of 800 MPa*
- Enhanced productivity: Streamlined mill-sinter-glaze process

Natural esthetics. Now

True shade gradient for an excellent shade match.

Pre-shaded 3M™ Lava™ Esthetic Zirconia discs have an integral color gradient to deliver natural-looking shading from enamel to dentin. There is no need to apply extra shading liquids or color corrections after sintering. What you get are esthetic full-contour restorations that truly match the VITA® Classic shades.



Initial situation with prepared teeth.



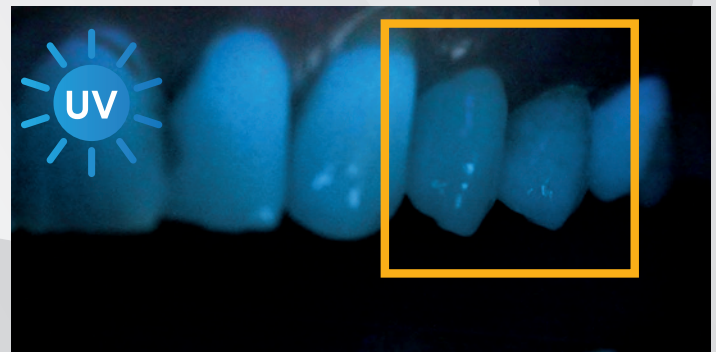
Preparations buccal.



A3 VITA® Classic shade selection.



Two glazed 3M™ Lava™ Esthetic Zirconia A3 shaded crowns in situ.



Clinical situation under UV light. 3M™ Lava™ Esthetic Zirconia crowns exhibit toothlike fluorescence.

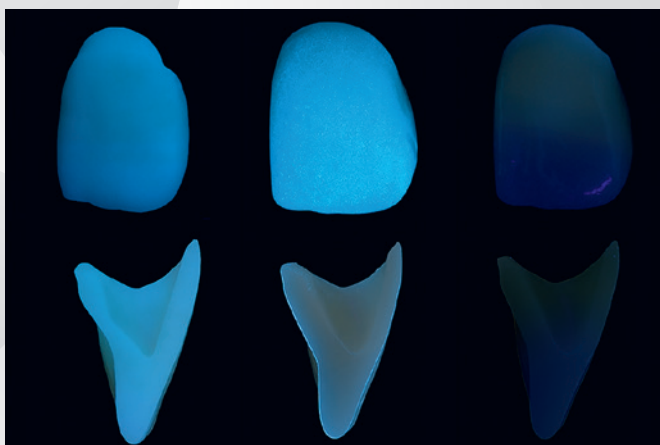
First zirconia with inherent toothlike fluorescence.

Natural teeth absorb the invisible UV light present in sunlight and artificial light and emit a visible bluish light. This is fluorescence. Zirconia per se is not fluorescent. Due to its unique shading formulation, Lava Esthetic zirconia is the first inherently fluorescing pre-shaded zirconia, allowing for a lifelike appearance in any light. Whether in daylight, sunshine or black light – restorations made of Lava Esthetic zirconia always look natural.

Why inherent fluorescence matters.

- Natural, toothlike appearance – even for unglazed, polished restorations – as fluorescence comes from the inside
- No special fluorescent glaze needed
- Fluorescence from glazes can be non-uniform or speckled
- Inherent fluorescence is maintained during restoration adjustments, while fluorescent glazes would be removed

Labial view
Cross section



A2 anterior crown made of 3M™ Lava™ Esthetic Zirconia.

Other pre-shaded cubic zirconia A2 crown with fluorescent glaze.

Other pre-shaded cubic zirconia A2 crown.

Source: 3M Oral Care internal data.

built in.

Ideal for esthetic full-contour crowns and bridges.

With 800 MPa* strength and a high translucency optimized for esthetic full-contour crowns and bridges, Lava Esthetic zirconia solves typical glass ceramic cases with more confidence. With minimum 0.8 mm, it allows for reduced wall thickness versus IPS e.max® and with 12 mm² anterior (14 mm² posterior) also thinner connectors.

For cases with very limited space or parafunctional patients requiring ultimate strength, choose 3M™ Lava™ Plus Zirconia.

Indications:**

- Anterior and posterior crowns
- Bridges with maximum one pontic between two crowns
- Inlays/onlays, veneers

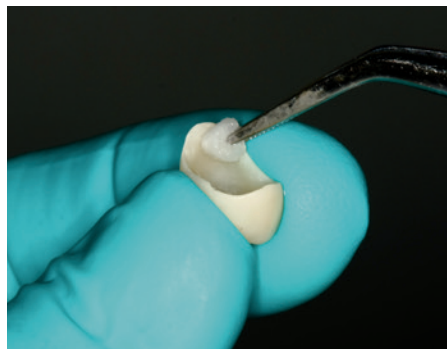


Cementation simplified.

The high strength of Lava Esthetic zirconia allows for conventional, self-adhesive or adhesive cementation. 3M cement recommendation: 3M™ RelyX™ Unicem 2 Self-Adhesive Resin Cement – the world's most clinically proven self-adhesive resin cement, combining high bond strength with simple handling. Compared to glass ceramic, bonding Lava Esthetic zirconia together with RelyX Unicem 2 cement requires fewer steps without compromising reliability and esthetics.



Lab: Sandblast the bonding surface with alumina, 50 µm grain size at 2 bars (30 PSI).



Dentist: Clean bonding surface after try-in and before final seating with NaOCl. Rinse and dry.



Apply 3M™ RelyX™ Unicem 2 Cement and seat restoration.

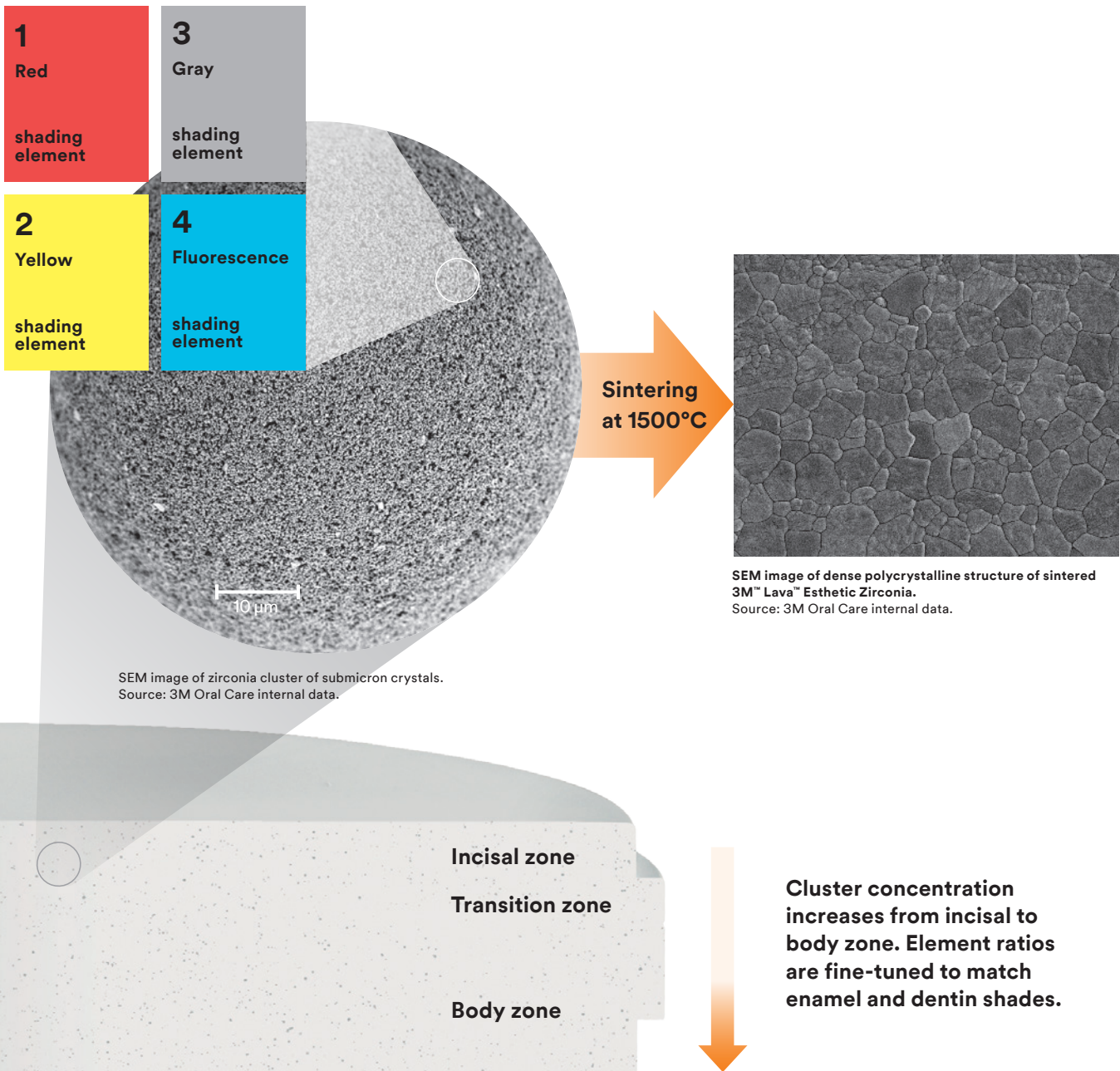
*3-point bending strength according to ISO 6872:2015; qualified for Type II, class 4; indications: crowns, bridges with one pontic between two crowns, inlays, onlays and veneers.

** Please refer to the instructions for use for details.

What's the secret? Dis of pre-shaded zirconia.

3M™ Lava™ Esthetic Zirconia discs are based on high purity zirconium dioxide stabilized with 5 mol% yttria. For shading, a newly developed four shading elements formula is utilized. Shading elements are carried by spherical microcrystalline clusters. These are visible as small dots in the disc and indicate the unique shading chemistry.

True shade match is achieved by fine-tuning the ratio of the red, gray and yellow shading elements. Shade gradient is produced by varying the cluster concentration. Sintering at 1500°C produces a dense polycrystalline microstructure. Shading elements are uniformly distributed and built into the crystals to provide the desired color gradient and fluorescence.

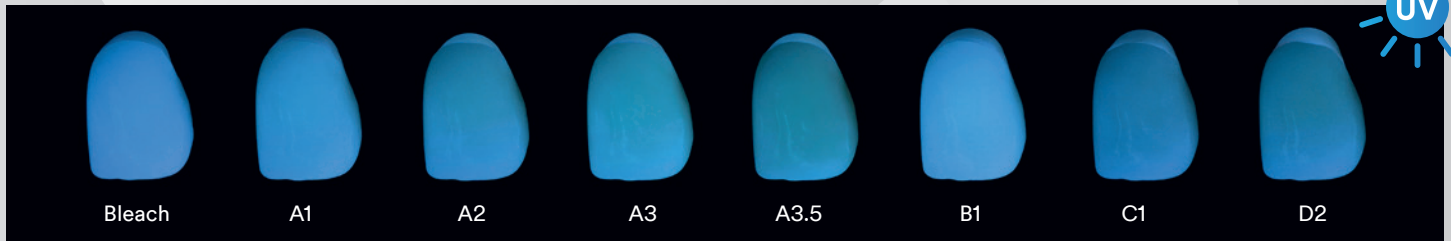


Cross section image of a 3M™ Lava™ Esthetic Zirconia disc.

cover the reinvention

Fluorescence.

With the addition of a fourth fluorescing element, Lava Esthetic zirconia's unique shading formula delivers for the first time inherent fluorescence for all shades.



UV light image of sintered 3M™ Lava™ Esthetic Zirconia crowns, shades Bleach, A1, A2, A3, A3.5, B1, C1 and D2. Source: 3M Oral Care internal data.

Translucency.

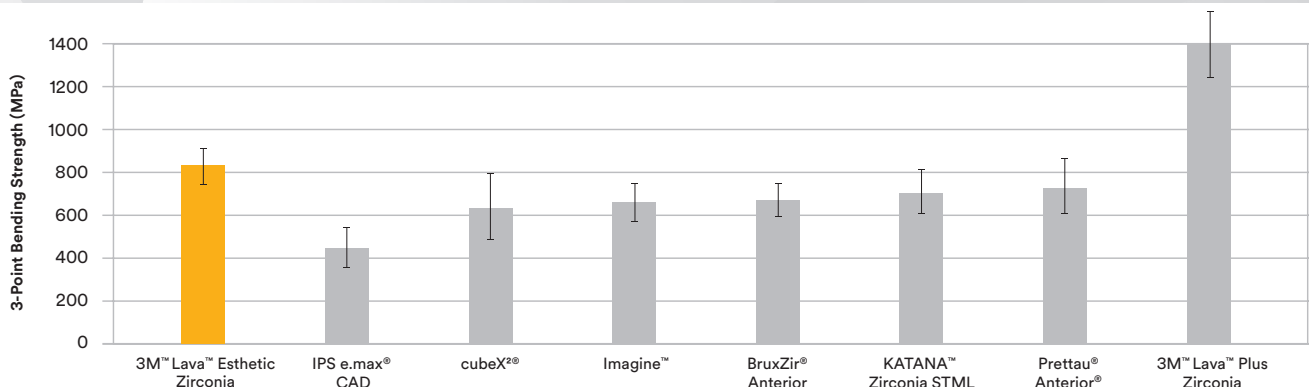
The crystal phase of sintered Lava Esthetic zirconia is predominantly cubic. Conventional zirconia stabilized with 3 mol% yttria is mostly tetragonal. The cubic crystals reduce light scattering thus providing a higher translucency level.



Backlight image of molar crown made of 3M™ Lava™ Esthetic Zirconia (left) compared to conventional high translucency zirconia (right). Source: 3M Oral Care internal data.

Strength.

With 800 MPa* Lava Esthetic zirconia provides higher strength than leading super-high translucent cubic zirconia and IPS e.max® CAD. Tetragonal 3M™ Lava™ Plus Zirconia provides even higher strength by transformation toughening.



*3-point bending strength according to ISO 6872:2015; qualified for Type II, class 4; indications: crowns, bridges with one pontic between two crowns, inlays, onlays and veneers. Source: 3M Oral Care internal data. Data available upon request. See last page for contact information.

Ordering Information

3M™ Lava™ Esthetic Fluorescent Full-Contour Zirconia

1 disc per pack	Disc height 14 mm	Disc height 18 mm	Disc height 22 mm
Shade	Item No.	Item No.	Item No.
Bleach	69319	69327	69335
A1	69320	69328	69336
A2	69321	69329	69337
A3	69322	69330	69338
A3.5	69323	69331	69339
B1	69324	69332	69340
C1	69325	69333	69341
D2	69326	69334	69342



3M™ RelyX™ Unicem 2 Automix Self-Adhesive Resin Cement

Refill shade	Item No.	Product Information
A2 Universal	56846	1 syringe – 8.5 g, 15 mixing tips (regular), 5 mixing tips (wide), 5 endo tips
A3 Opaque	56847	1 syringe – 8.5 g, 15 mixing tips (regular), 5 mixing tips (wide), 5 endo tips
Translucent	56848	1 syringe – 8.5 g, 15 mixing tips (regular), 5 mixing tips (wide), 5 endo tips



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