



Cercon® xt ML  
Extra translucent multilayer zirconia

## Layers ahead of the rest

Brochure for the dental laboratory

Cercon® xt ML – Extra translucent Multilayer zirconia

# Layers ahead of the rest

Take monolithic restorations to the next level

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As the original pioneer of zirconia, we spent more time than anyone else on development to create the different layers in our multilayer product to present an ideal gradient for perfect aesthetics in the final restoration.

With Cercon® xt ML there is no need for color staining.

It provides a natural blend from incisal to cervical and translucency to mimic nature while not compromising strength and integrity. Sintering is no different to Cercon® xt or Cercon® ht.



**Thomas Bartsch**

TRIODONT Zahntechnik GmbH  
Eschweiler | Germany





Cercon® xt ML – The new zirconia standard for lifelike aesthetics, color accuracy, and faster production



### **Perfect Lifelike Gradient**

Matching natural tooth aesthetics without the need to veneer or stain, especially for the anterior region (flexural strength: 750 MPa)



### **Guaranteed Color Accuracy\***

Unparalleled color matching covering all 16 VITA\*\* shades and BL2



### **Easy To Use**

Easy to nest and same milling and firing protocols for all Cercon® zirconia discs

\*Using our trusted True Color Technology

\*\* VITA is a trademark of VITA Zahnfabrik

## Layering in the disc

# Perfect Lifelike Gradient

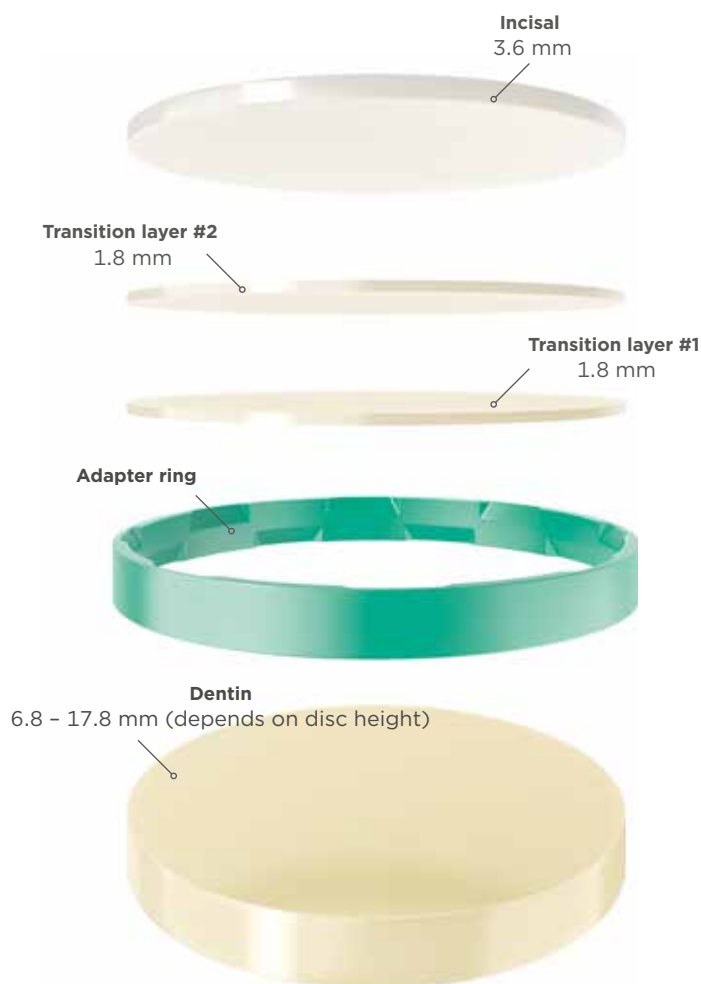
The four shade layers create a seamless gradient from incisal to dentin just like a natural tooth

## The Benefits

- + Premium aesthetics even with monolithic restorations
- + After sintering, the different shade layers yield a highly convincing shade gradient, from the incisal to the dentin – just as in natural teeth
- + Extra high translucency (approx. 49%) and unparalleled shade accuracy allows life-like aesthetics especially for the anterior region
- + All 16-VITA shades and BL2 are available. Every shade has its own incisal shade.
- + An alternative to lithium disilicate (translucency)

The special light-conducting behavior of zirconia required the shade concept to be completely re-thought. The result: Cercon® xt ML.

- + The clever arrangement of the layers with differentiated compatible incisal shades (VITA shades) prevents excessive brightness
- + The asymmetrical dentin/incisal layering for all disc thicknesses yields a natural distribution of value (brightness)

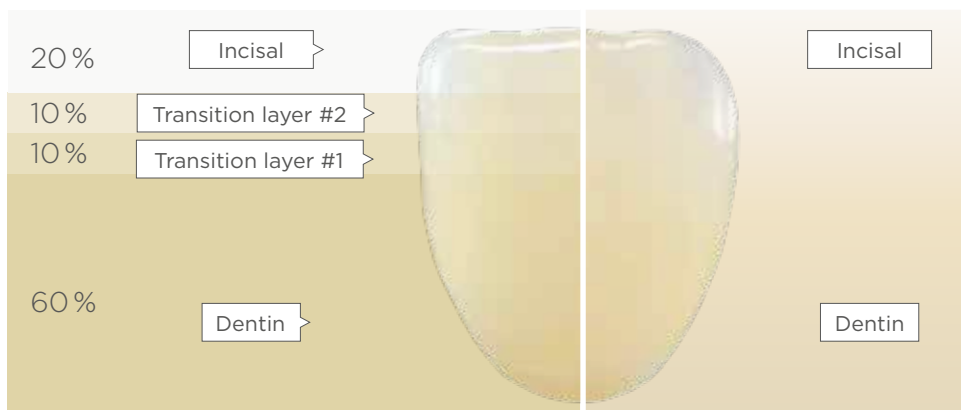


## LAYER ARRANGEMENT

The layering in the incisal area is the same for all three disc sizes; only the dentin area has a different thickness. This makes nesting particularly easy for the dental technician.



Disc height	14 mm	100%	18 mm	100%	25 mm	100%
Incisal	3.6 mm	25.70%	3.6 mm	20%	3.6 mm	14.40%
Transition layer #2	1.8 mm	12.85%	1.8 mm	10%	1.8 mm	7.20%
Transition layer #1	1.8 mm	12.85%	1.8 mm	10%	1.8 mm	7.20%
Dentin	6.8 mm	48.60%	10.8 mm	60%	17.8 mm	71.20%



### Before milling and sintering

Placement of the crown in CAM software in an 18-mm Cercon® xt ML disc

### After sintering

Shade gradient in the resulting crown

## Feedback from test users

The secret is an optimized color gradient built into an already proven material

”

Finishing requires glaze only – natural gradient removes the need to layer or stain

”

Hard to tell the difference between a Cercon® xt ML monolithic and a veneered restoration

”

True Color Technology

# Guaranteed Color Accuracy

Unparalleled color matching covering all 16 VITA shades using our trusted True Color Technology allows lifelike aesthetics

## The Benefits

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- + Decades of expertise in ceramic shades
  - + Proprietary mixing and shade formulas
  - + Consistent quality between batches (A3 will always be A3)
  - + Shade accuracy confirmed by customers in Europe and the USA
- 



Shade matching is easier and just glaze and go

”

Unparalleled shade matching across all 16 classic VITA shades

”



# Technical specifications



<b>Composition (in % by mass) Cercon® xt ML</b>	<ul style="list-style-type: none"> <li>• Zirconium oxide</li> <li>• Yttrium oxide 9 %</li> <li>• Hafnium oxide &lt; 3 %</li> <li>• Aluminum oxide, Silicon oxide, other oxides &lt; 2 %</li> </ul>
<b>Flexural strength</b>	750 MPa
<b>Translucency*</b>	49 %
<b>CTE</b> (coefficient of thermal expansion)	10.1 µm/m·K (25–500 °C)
<b>Indications</b>	<p><b>Indications in the anterior and posterior segments:</b>  <b>Cercon® xt ML:</b>  Indicated for all-ceramic restorations in the anterior and posterior segments for:</p> <ul style="list-style-type: none"> <li>• Crowns</li> <li>• Three-unit bridges (up to the 2<sup>nd</sup> premolar)</li> </ul>
<b>Sintering temperature</b>	1500 °C Same firing program as for all Cercon® zirconia products. Speed sintering in 2 hours and 50 minutes
<b>Adapter ring</b>	green
<b>True Color Technology</b>	yes
<b>Shades</b>	All 16 VITA** shades + BL2

\* Translucency measured on a white disc with a haze meter

\*\* VITA is a trademark of VITA Zahnfabrik GmbH



Simple, efficient, and fast

# Easy to use

Easy to nest and same milling and firing protocols for all Cercon® zirconia discs

## The Benefits

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- + The layering in the incisal area is the same for all three disc sizes; only the dentin area has a different thickness. This makes nesting particularly easy for the dental technician.
- + Improves productivity with reproducible results and time savings (milling, sintering, glaze)
- + Identical sintering programs/temperatures for all Cercon® zirconia products
- + Speed sintering in less than 3 hours for all Cercon® zirconia products
- + QR code scanning for easy use in the inLab MC X5 (CAM software version 19 and later)
- + Key way on disc surface for exact positioning when using the same discs for multiple millings

## EVIDENCE OF CLINICAL PERFORMANCE



### International Publications

confirm that Cercon® zirconium oxide is among the best documented and evaluated zirconia ceramic materials worldwide.



### Clinical Studies

on the clinical performance of zirconia crowns and fixed partial dentures have been published.





## Feedback from test users

This results in amazing aesthetics and great mill-ability

”

Thickness and positioning of dentin layer makes it easier to nest and ensures the perfect gradient every time

”

Easy to switch - no new milling or firing protocols

”

Perfect for monolithic or cut-back restorations

”

### The Benefits for the patient

- + Long-lasting
- + Biocompatible
- + Aesthetic (True Color Technology)
- + Tested safety (Cercon® is the best-tested all-ceramic system in the world)

Visualization of different layers in inLab CAM 19 (available in May 2019)



Nesting of a molar, a 3-unit bridge and an anterior tooth in a 18 mm Cercon® xt ML disc

# What users think



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**Devaughn Fraser**

Highland Dental Laboratory  
Calgary | Alberta | Canada

Dentsply Sirona's new Cercon® xt ML is the new benchmark against which all other multilayers will be measured against. This great new product picks up where the industry left off.

As the name suggests, it is a multilayer, but it is a multilayer with some innate differences. Some industry materials have layered products, usually three to four layers. Many of these are layered in equal distribution—each layer being very identifiable from the proceeding. However, the new Cercon® xt ML is smart by design – featuring the body color being 60% of the height, and then two beautifully blending transition layers, and then capped off with a unique incisal for each 16 classic shades.

Having been able to evaluate this material in the laboratory, I remember remarking “this just looks like a tooth”. One would think that such statements would be customary in a lab, but I can assure you that it is not. This product, coupled with modern design and milling capability is allowing dental technicians to finish better looking restorations, faster.

Evolution is based upon purposeful improvement. The Cercon® xt ML is now the industry's finest multilayer. It is my belief that you will be as equally delighted with this material as I am. Happy milling.



”

**Thomas Bartsch**

TRIODONT Zahntechnik GmbH  
Eschweiler | Germany

## Why multilayer if you have an excellent product like Cercon® xt?

Making good things even better – striving for perfection – is a challenging task and in this case required a particularly time-consuming development phase. It was entirely obvious to me: a multilayer material in the tradition of Cercon® ht and Cercon® xt would have to meet all of the following conditions, a combo unique in the market:

- VITA shade reproduction “out of the disc”,
- milling, sintering, glazing, sensible layer arrangement to avoid excessively light shades,
- well-differentiated shade effects true to natural incisal, corresponding to the VITA shades.

It is by far not enough to simply brighten the existing shades on one side of a disc. The special light behavior of zirconia requires a completely new approach in terms of the shade concept. The result is Cercon® xt ML, with its asymmetrical dentin/incisal layering for all disc thicknesses yields a natural distribution of value (brightness).

Reproduction of VITA  
shades “out of the disc”

”

Well-differentiated,  
true-color incisal edge  
shades

”





For Van Beers Dental Techniques Cercon® xt ML is the solution for minimal invasive monolithic restorations. It's smooth color and transparency gradient, same fast Cercon® sintering cycle, makes this multi layer zirconium the best in class. Cercon® xt ML does the job for us.



**Casper van Beers**  
Dental Technician  
Van Beers Dental Techniques  
Amsterdam | Netherlands



Cercon® xt ML represents a great alternative in prosthetic restorations of anterior teeth. The accurate mix of cervical chroma that decreases toward incisal increasing traslucency, while maintaining the correct value as in the natural tooth.



**Paolo Mola**  
Odontomaster  
Rivoli | Italy



I am super excited to add this to my arsenal of Cercon® zirconias! Cercon® xt ML is a beautiful zirconia. It is true to shade and the gradient within the disc is outstanding. Being able to use the same sintering cycle as Cercon® ht and Cercon® xt is also a great feature.



**Derrick Staggs**  
Staggs Dental Lab, LLC  
McCoole | Maryland | USA



Cercon® xt ML provides a natural blend from incisal to cervial. It provides translucency to mimic nature and does not compromise strength and integrity of the material. Sintering of Cercon® xt ML is no different than sintering Cercon® ht and Cercon® xt. For 3-unit bridges you can sinter in fast speed. Cercon® xt ML helps lab technicians provide beautiful and strong restorations to dentists and patients.



**Edwin Kee, MCDT, TE**  
Associate Professor  
LSU School of Dentistry  
New Orleans | Louisiana | USA

Cercon®

Compatible with  
all leading open  
CAD/CAM systems



inLab MC X5

(CAM software  
version 19 and later):

QR code scanning for  
ease of handling



# Ordering information

Product			REF	Product			REF
Circon® xt ML – Disc 98							
A1	A1 14 mm	5366115014	C1	C1 14 mm	5366115914		
	A1 18 mm	5366115018		C1 18 mm	5366115918		
	A1 25 mm	5366115025		C1 25 mm	5366115925		
A2	A2 14 mm	5366115114	C2	C2 14 mm	5366116014		
	A2 18 mm	5366115118		C2 18 mm	5366116018		
	A2 25 mm	5366115125		C2 25 mm	5366116025		
A3	A3 14 mm	5366115214	C3	C3 14 mm	5366116114		
	A3 18 mm	5366115218		C3 18 mm	5366116118		
	A3 25 mm	5366115225		C3 25 mm	5366116125		
A3.5	A3.5 14 mm	5366115314	C4	C4 14 mm	5366116214		
	A3.5 18 mm	5366115318		C4 18 mm	5366116218		
	A3.5 25 mm	5366115325		C4 25 mm	5366116225		
A4	A4 14 mm	5366115414	D2	D2 14 mm	5366116314		
	A4 18 mm	5366115418		D2 18 mm	5366116318		
	A4 25 mm	5366115425		D2 25 mm	5366116325		
B1	B1 14 mm	5366115514	D3	D3 14 mm	5366116414		
	B1 18 mm	5366115518		D3 18 mm	5366116418		
	B1 25 mm	5366115525		D3 25 mm	5366116425		
B2	B2 14 mm	5366115614	D4	D4 14 mm	5366116514		
	B2 18 mm	5366115618		D4 18 mm	5366116518		
	B2 25 mm	5366115625		D4 25 mm	5366116525		
B3	B3 14 mm	5366115714	BL2	BL2 14 mm	5366116714		
	B3 18 mm	5366115718		BL2 18 mm	5366116718		
	B3 25 mm	5366115725		BL2 25 mm	5366116725		
B4	B4 14 mm	5366115814					
	B4 18 mm	5366115818					
	B4 25 mm	5366115825					



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