



Cercon®ht ML, Cercon®xt ML

## The Zirconia Multilayer-Solution

THE DENTAL  
SOLUTIONS  
COMPANY™

 Dentsply  
Sirona

# The Zirconia Multilayer-Solution

**Cercon stands for proven clinical safety with over 20 years of zirconia experience.**

As the pioneer for already precolored and presintered zirconia and together with dental technicians from the USA and Europe, we have developed different layers in our multilayer zirconia to create the most suitable material and color gradient. The objective: High aesthetics and strength in the final restoration.

The special light-conducting behavior of zirconia required the shade concept to be completely re-thought in order to achieve a natural distribution of value (brightness).

**The result: The Cercon ML Team for the Zirconia Multilayer-Solution**

## SCOPE OF APPLICATION

<b>Crowns</b> in the anterior region	●	●
<b>Crowns</b> in the posterior region	●	●
<b>Primary telescopic crowns</b>	●	—
<b>Two piece abutments*</b>	●	—
<b>3-unit bridges</b> in the anterior region (up to the 2 <sup>nd</sup> premolar)	●	●
<b>3-unit bridges</b> in the posterior region	●	—
<b>≥4-unit bridges</b> in the anterior region	●	—
<b>≥4-unit bridges</b> in the posterior region	●	—
<b>Full round house</b> (with no more than 2 pontics between the abutment crowns)	●	—

\* Not valid for USA

\*\* Using our trusted True Color Technology

\*\*\* VITA is a registered brand of VITA Zahnfabrik

## Cercon Multilayer – Advantages in the team



### Cercon® ht ML

high translucent multilayer

## Aesthetics meets Strength



### Cercon® xt ML

extra translucent multilayer

## Natural anterior aesthetics



## Lifelike Gradient

Four integrated color layers after sintering lead to a dentine incisal gradient like a natural tooth. Without necessary veneering.



## Approved Color Accuracy\*\*

Excellent color matching covering all 16 VITA\*\*\* shades and BL2.



## Time saving and efficiency

Easy to nest and same sintering programs for all Cercon zirconia discs. Just glaze and go.



### ● One Disc for all

Hybrid zirconia multilayer for the combination of high strength and natural aesthetics. From the single crown to 14-unit bridge. None nesting restrictions even for widespan bridges.

### ● Covering discolored dies

Especially in the anterior region, depending on the degree of discoloration and wall thickness of the restoration.

### ● Especially for monolithic restorations

High aesthetics for monolithic restorations, especially in the anterior region.

### ● Up to 3-unit bridges

In the anterior region up to the 2nd premolar.



The restorations shown are merely glazed.

# Safety and flexibility even for wide span bridges

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

## The Benefits

- + Premium aesthetics even with monolithic restorations.
- + All 16-VITA shades and BL2 are available. Every shade has its own incisal shade.
- + No nesting restrictions even with large bridges. Same sintering programs for all Cercon zirconia discs.
- + Extra high translucency (49% Cercon xt ML and 41 - 49% Cercon ht ML) and excellent shade accuracy allows lifelike aesthetics especially in the anterior region.
- + Cercon ht ML, high translucent zirconia with a bending strength of 1200 MPa for a broad indication and safety. For even wide span bridges.
- + Cercon xt ML, extra-translucent zirconia with a bending strength of 750 MPa for high aesthetics.

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My first, initial mills of Cercon ht ML are very promising. They look great, the shade comes out beautiful. They can be sintered together with the other Cercon products, that's very efficient. And up to full round house, a promising Multilayer. Awesome!



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

“

For me Dentsply Sirona's Cercon Multilayers are the new benchmark against which all other multilayers will be measured against. It is my belief that you will be as equally delighted with this material as I am. Just try it and happy milling.



**Devaughn Fraser**  
Highland Dental Laboratory  
Calgary | Alberta | Canada

“

With Cercon Multilayer there is no need for color staining. It provides a natural blend from incisal to cervical and translucency to mimic natural aesthetic. Combined with high strength, for me the perfect Multilayer team.



**Thomas Bartsch**  
TRIODONT Zahntechnik GmbH  
Eschweiler | Germany

“

The most important feature of Cercon ht ML is the simplicity with which it is possible to obtain a very faithful result for the classic V-shades. The product allows an easy finishing of the restorations with glazing and staining. For monolithic restorations, it represents a turning point, not only for small bridges, but also for more extensive restorations and the anterior region.

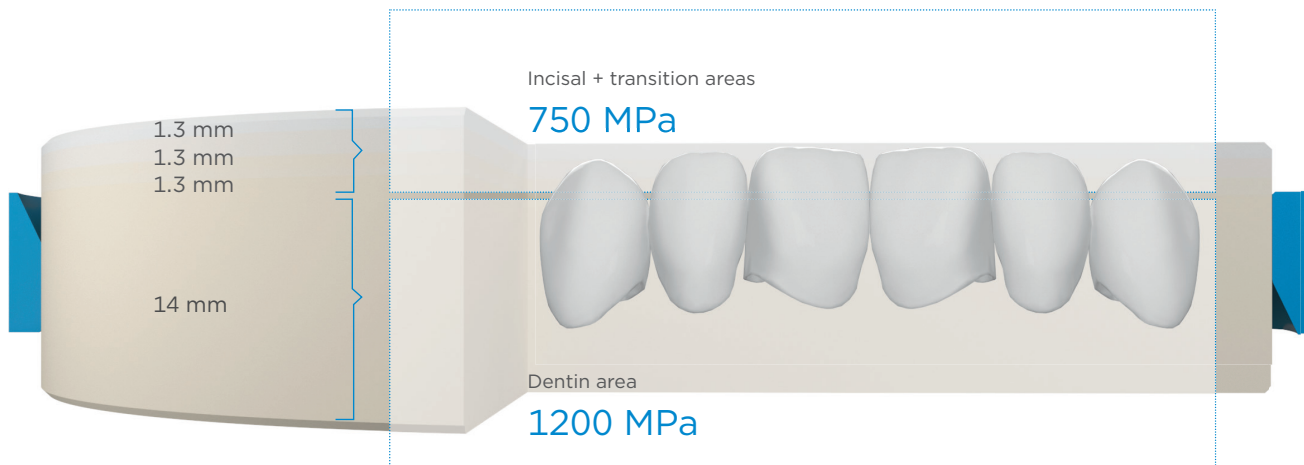


**Massimo Merli**  
Laboratorio Odontotecnico  
Bellusco-Milano | Italy

# Disc Structure is created to combine safety and aesthetics

## Cercon ht ML

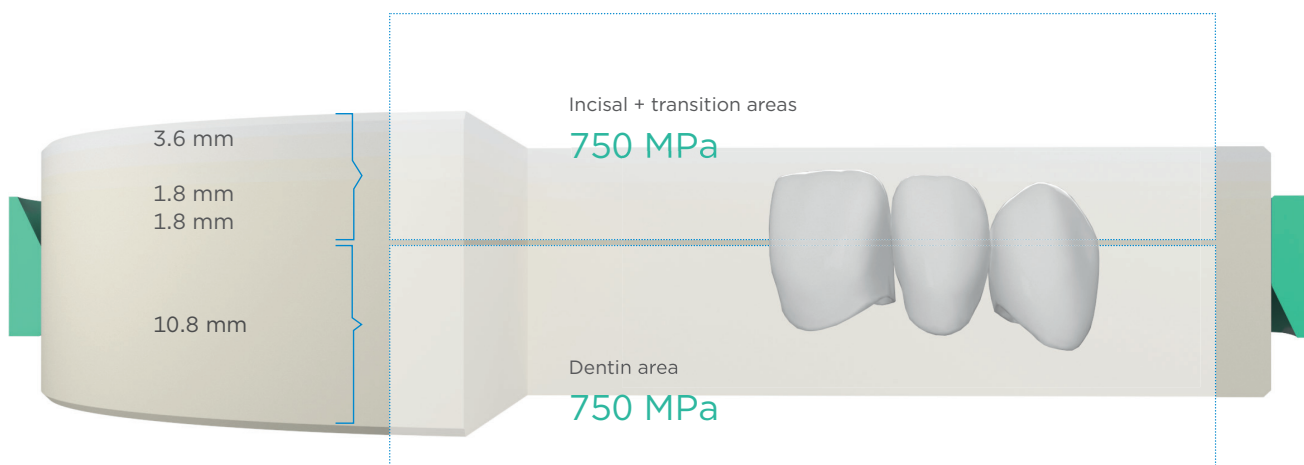
Hybrid zirconia multilayer material to combine high flexural strength and natural tooth aesthetics in one disc. Gradient from 1200 MPa in the dentin up to 750 MPa in the incisal.



Placement of the crown in CAM software in an 18-mm Cercon ht ML disc. It is recommended to nest the crown or bridge in the upper part of the disc to achieve the optimum aesthetic result.

## Cercon xt ML

Take monolithic restorations to the next level. Matching natural tooth aesthetics without the need to veneer or stain, especially for the anterior region (flexural strength 750 MPa).



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

# Cercon Multilayer in the digital Workflow

Dentsply Sirona attaches great importance to the development of innovative quality products and coordinated solutions within the framework of carefully validated processes, with the aim of achieving both comprehensive and secure digital workflows in all prosthetic workflows in the dental laboratory.

The Cercon zirconia materials from Dentsply Sirona are validated materials across the relevant manufacturing chain - for reliable and reproducible restoration results in an efficient manufacturing process.

## ▶ SCAN

### Primescan

The intraoral scanner has a high-precision Smart Pixel Sensor and creates 3D models in real colors and an unsurpassed resolution. The starting point for digital workflows between the practice and the laboratory in the fabrication of all-ceramic restorations made of Cercon Multilayer.

### inEos X5

The extraoral scanner with 5-axis technology offers proven scanning accuracy for scanning models and impressions. Basis for high-quality dental restorations.

## ▶ DESIGN

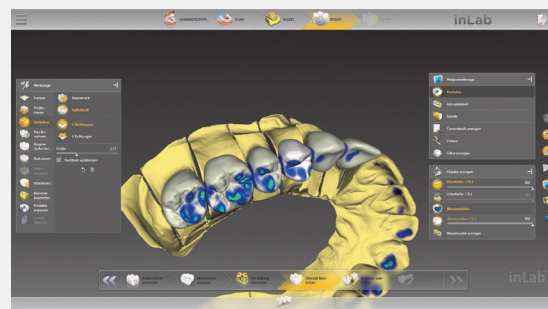
### inLab CAD Software

The integration of Cercon ML in the material database of the CAD software saves time in the design process and automatically considers material properties - for more reliable results and reproducibility.

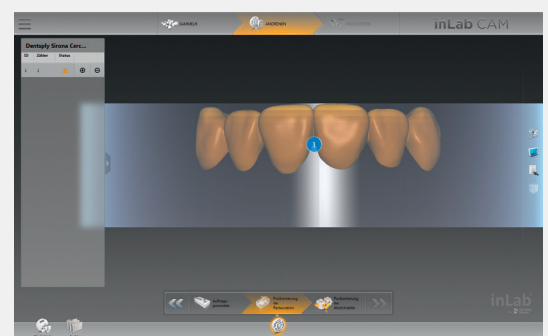
## ▶ MILL

### inLab CAM Software

Cercon Multilayer discs are stored in the material database and can be quickly and directly assigned to the desired milling job via QR code entry. For optimum positioning in the workpiece (aesthetic alignment of the layers and strength in the dentine area), the object can be manually moved and rotated in all spatial directions.



inLab CAD SW



inLab CAM SW



Universal Stain & Glaze



Calibra Bio\*\*\*

## ▶ SINTER

### inLab MC X5\*

Coordinated milling strategies, positioning aid for safe repositioning of the blank and diamond-coated special milling cutters in combination with Cercon ML ensure a high and reproducible result quality.

### inLab Profire

Pre-programmed for Dentsply Sirona sintering materials, such as Cercon ML, the furnace offers, among other things, validated sintering programs for conventional long-term sintering and speed sintering as well as sintering with pre-drying - for efficient sintering processes and reproducible results.

## ▶ FINISHING\*\*

### Universal Stain & Glaze

The finishing of all-ceramic restorations is an essential component of aesthetics and quality. Cercon Multilayers can be finished with only a single glaze (Glaze) or by an individual characterization with stains (Universal Stain).

### Multimat Cube

Pre-installed firing programs and precise control of the furnace and firing parameters ensure reproducible results in combination with Cercon Multilayers and Universal Stain & Glaze.

## ▶ CEMENTATION

### Calibra Bio\*\*\* Cement

The bioactive luting cement that selfrepairs for long-lasting restorations



\* Cercon Zirconia 98 mm discs are also dedicated to other open milling machines.

\*\* Celtra Ceram is especially for veneering all-ceramic frameworks and expands the opportunities in the daily application of aesthetics and indications.

\*\*\* Is not available in every country, please contact your local Dentsply Sirona representative

# Cercon® ht ML, Cercon® xt ML

	Cercon® ht ML	Cercon® xt ML
<b>Composition</b> (in % by mass)	Zirconium oxide <ul style="list-style-type: none"> <li>• Yttrium oxide 5–9%</li> <li>• Hafnium oxide &lt; 3%</li> <li>• Aluminum oxide, Silicon oxide, other oxides &lt; 2%</li> </ul>	Zirconium oxide <ul style="list-style-type: none"> <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 – 1200 MPa	750 MPa
<b>Translucency<sup>1</sup></b>	41 – 49%	49%
<b>CTE</b> (coefficient of thermal expansion)	10.5 µm/m·K (25–500 °C)	10.1 µm/m·K (25–500 °C)
<b>Indications</b>	<p><b>Indications in the anterior and posterior segments Cercon® ht ML:</b> Cercon® ht ML is indicated in the anterior and posterior segments for:</p> <ul style="list-style-type: none"> <li>• Crowns</li> <li>• Telescopic primary crowns</li> <li>• Multi-unit bridges (with no more than two pontics between abutment crowns; with no more than 6 units<sup>2</sup>)</li> <li>• Two piece abutments<sup>3</sup></li> </ul> <p>Cercon® ht ML can be used as a substructure (framework) which is then veneered with a dental veneering ceramic or can be used for full-contour application (without veneering) as well. In the case of telescopic primary crowns, the substructure is not veneered.</p>	<p><b>Indications in the anterior and posterior segments Cercon® xt ML:</b> Cercon® xt ML is indicated for all ceramic restorations for anterior and posterior locations:</p> <ul style="list-style-type: none"> <li>• Crowns</li> <li>• 3-unit bridges (up to the 2nd 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	1500 °C
<b>Adapter ring</b>	blue	green
<b>True Color Technology</b>	yes	yes
<b>Shades</b>	All 16 VITA <sup>4</sup> shades + BL2	All 16 VITA <sup>4</sup> shades + BL2
<b>inLab SW19.0</b>	-	Part of material library & nesting tool. Scanning via QR code.
<b>inLab SW20.0</b>	From version 20.0.1 part of the material library & nesting tool. Scanning via QR code.	Part of material library & nesting tool. Scanning via QR code.
<b>Universal Stain &amp; Glaze</b>	Staining and overglaze for all-ceramics like all Cercon Zirconia materials	
<b>Celtra Ceram</b>	Veneering ceramic for all-ceramic frame materials like Cercon and Celtra Press.	
<b>Calibra Bio<sup>5</sup> Cement</b>	Bioceramic Luting Cement. Self-repairing hydroxyapatite (HA) layer. For long lasting marginal integrity, naturally. Part of the complete Calibra family of cements.	

<sup>1</sup> Translucency measured on a white disc with haze meter

<sup>2</sup> for Canada only

<sup>3</sup> not valid for USA

<sup>4</sup> VITA is a registered brand of VITA Zahnfabrik

<sup>5</sup> is not available in every country, please contact your local Dentsply Sirona representative

(For the above mentioned products, please observe the corresponding instructions for use)



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