

Cercon® ht

The new zirconia standard  
for color accuracy:  
True Color Technology

Cercon® ht

# Setting benchmarks

## 2001

### Cercon

The Cercon all-ceramic CAM system is introduced, and with it the first economically viable process for the production of dental zirconia crowns and bridges.

## 2003

### Cercon base colored

Cercon base colored is introduced to meet the rapidly increasing demand for zirconia in a tooth-like shade.

## 2009

### Cercon base light and medium

New shades are added with Cercon base light

## 2011

### Cercon ht

Cercon ht is introduced; its higher translucency extends the esthetic range.

## 2012

### Cercon ht light and medium

The range of available shades is extended to include the highly translucent and homogeneous Cercon ht light and medium blanks.

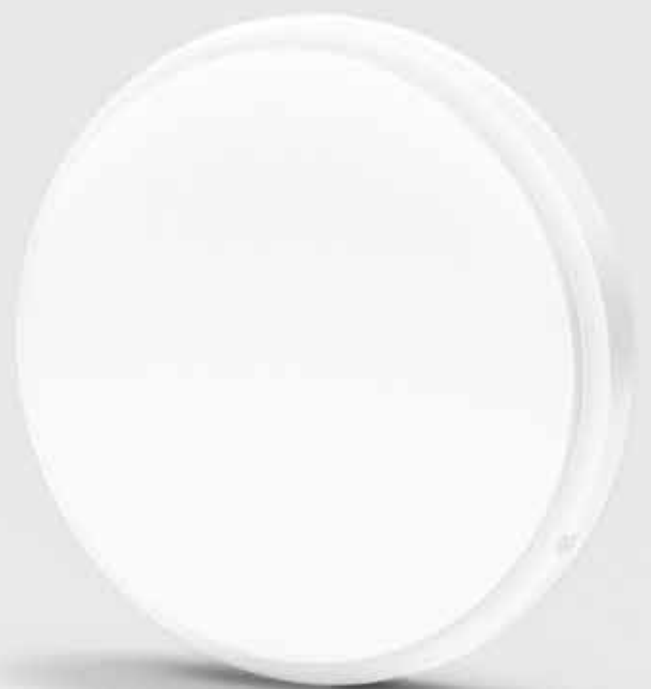
## 2015

### Cercon ht True Color Technology

The new zirconia standard for color accuracy in the 16 classic Vita shades.

### Cercon ht for open systems

Introduction of Cercon ht Ø 98 mm disks for open CAM systems. A patent application is filed for the new disk adapter.



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# A success story

## In the beginning

As early as in the 1990s, zirconium oxide was first used in medical technology as a material for artificial hip joints. Because of its particular properties – as a high-strength, biocompatible and white ceramic material – zirconium oxide, or zirconia, was of great interest to the dental field. In 2001, the Cercon all-ceramic CAM system was introduced, and with it the first economically viable process for the production of zirconia crowns and bridges in dentistry. The system was based on the milling of Cercon base pre-sintered zirconia blanks. The sintering temperature control specifically adapted to Cercon base ensured the correct final dimensions for the restorations. This process set the benchmark for today's zirconia processing standards. As the demand for tooth-like pre-colored zirconia increased rapidly, Cercon base colored was introduced in 2003 – a

homogeneously pre-colored blank which made it easier to achieve better esthetic results, especially for medium- and dark-colored teeth. Beyond adding shade, the primary development objective was to ensure that pre-coloring of the zirconia did not compromise its other material properties. In 2009, additional shades were added with Cercon base light and medium.

## Focus on safety

Our extensive clinical research also helped us in the early recognition and analysis of technical complications such as ceramic chipping. Based on the findings from clinical trials, we were the first manufacturer to succeed in developing a scientifically founded concept for preventing veneer chipping on zirconia restorations. The central element of this concept is the modification of the cooling part of the firing process by introducing

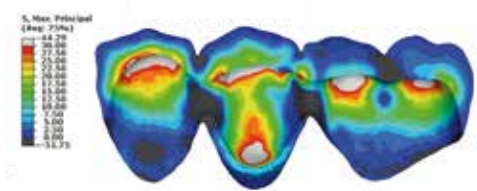
a 6-minute slow-cooling phase. This process was first studied scientifically with the University of Aachen, based on a fundamentally new approach, using the finite-element method.

The simulation results were reviewed with the University of Heidelberg study in intensive chewing simulator testing, where the time in situ examined was significantly extended. The accelerated lifespan simulation was based on a theoretical time in situ of 15 years, as compared to the 5 years covered by the usual chewing simulations. Thanks to the modified cooling regime, the success rates of the all-ceramic system were the same as those of the metal-ceramic system tested under the same conditions. It was further shown that modifying the veneer by adding a leucite reinforcement did not increase the fracture stability. This efficacy result was validated in a clinical in-vivo study.

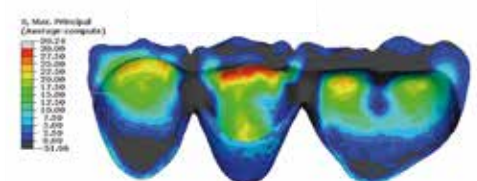
## STRESS DISTRIBUTION

In all-ceramic ersus metal-ceramic

All-ceramic system



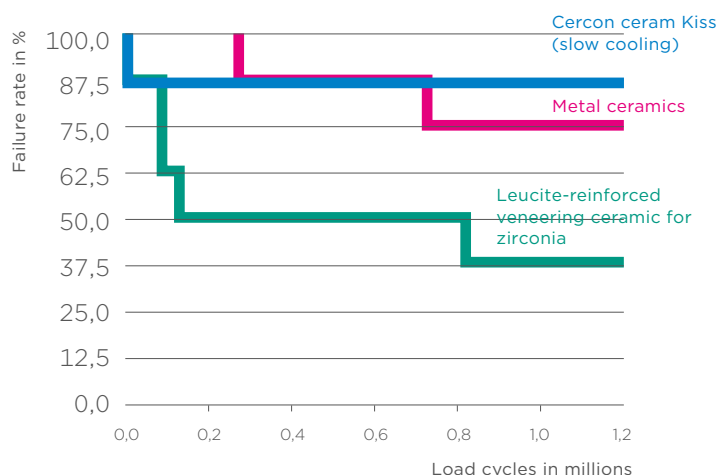
Metal-ceramic system



Compressive stresses are indicated in black, tensile stresses in colors)

## FAILURE PATTERNS

In differenc t systems



Cercon ceram Kiss with well-defined slow cooling on Cercon – at the same level as the gold standard.



### Optical properties and fully contoured restorations

We set another benchmark in 2011 with the introduction of Cercon ht, responding to the wish widely expressed by dental technicians and dentists to extend the range of esthetic indications by increasing the translucency of the clinically proven Cercon material.

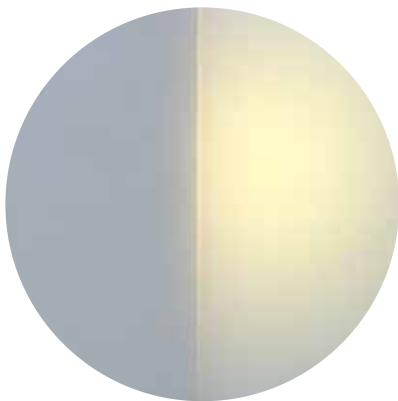
The new optical properties also suggested the material's use for fully contoured zirconia restorations.

Working closely with the University of Regensburg, we had intensive wear-and-tear studies performed to check the material's suitability for monolithic restorations. Only after these scientific studies had yielded positive results was the material recommended for fully contoured use.

In 2012, the range of available shades was extended to include the highly translucent and homogeneous Cercon ht light and medium blanks. Natural teeth age. As they do so, they

take on a more intense shade (increased chroma) and do not let as much light pass through (decreased translucency). For the more intensive tooth shades, Cercon ht behaves similarly in terms of chroma and translucency, imitating the natural aging process of human teeth. Since that time we have been working on the next logical step - developing Cercon ht for the 16 classic Vita shades.

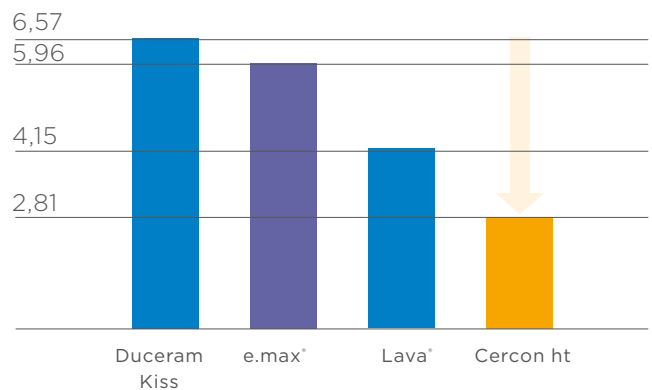
### LIGHT TRANSMISSION



Light transmission by conventional zirconia and Cercon ht

### RE-POLISHED

Wear surface on antagonist [mm<sup>2</sup>]



Wear performance of fully contoured restorations/University of Regensburg, 2011

# A success story

## Studies on long-term stability

Cercon is the most extensively studied ceramic system, and Cercon base and Cercon ht are the clinically most widely documented dental zirconia materials. The chewing simulation had already been used during the development of the Cercon system as an important method to determine the long-term stability of veneered Cercon bridges. What has now become the standard, a test with 1.2 million chewing cycles with superimposed thermal cycling of typically 10 samples in parallel (Regensburg chewing simulator), allows the selection of stable restoration materials or combinations thereof. When developing Cercon ht, DeguDent was able to draw on the many years of successful clinical use of Cercon base. The question facing the

developers at DeguDent was: How can you ensure that a modification of the material as planned for Cercon ht will not lead to reduced long-term stability? To examine this, a special method for VHCF (Very High Cycle Fatigue) tests was applied. Together with the University of Siegen, a first study on zirconia samples was performed using equipment that permitted 40 million load cycles to be performed on a sample in a relatively short time using ultrasonic excitation - 33 times more than during chewing simulation trials. Cercon base and Cercon ht samples were compared in their unloaded state, after storage in water and after thermal cycling. The result of this study was that Cercon ht tends to exhibit even higher fatigue strength than Cercon base.

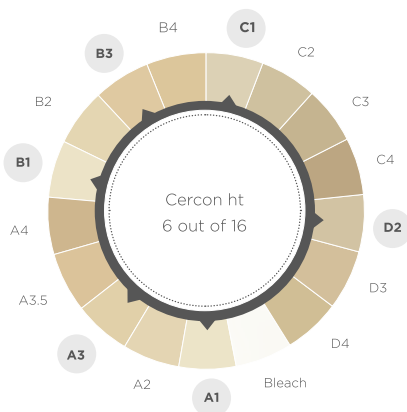
Zirconia is a high-purity ceramic material. Pigments in zirconia constitute

a contamination of sorts. Therefore, the shades with the darkest pigments were compared to Cercon ht white in a second study. When selecting pigments to achieve a specific shade, it must be ensured that these have no negative impact on the mechanical properties of the material, notably in terms of long-term stability. On this question, too, a study was performed in cooperation with the University of Siegen, using ultrasonic fatigue to compare white (unpigmented) samples to samples with the highest pigment concentrations, namely shades A4 and C4. Again, it was found that the non-pigmented and the pigmented Cercon ht behaved identically within the measuring accuracy. Stable clinical behaviour can therefore be expected in Cercon ht in all of the 16 classic Vita shades.



## Development of the 16 classic Vita shades for Cercon ht

Our decades of expertise in the ceramic field have taught us how ceramic-based materials, the so-called frits, can be stained with suitable pigments, creating crystalline structures that mimic the optical properties of natural teeth. We have transferred this basic idea to zirconia: suitable pigments are added to the base material to achieve the desired tooth shades. The main differences between the approaches to producing homogeneously colored zirconia blanks lie in the selection of suitable pigments and the procedure for developing and evaluating the tooth shades for zirconia. The pigments must retain their staining effect even after sintering at 1.500°C, i.e. they must be stable. For the final shade evaluation, the blanks must be subjected to the entire production process, followed by milling and sintering the dental objects. The shade evaluation for the new Cercon ht was based on our experience from the development of veneering ceramics and on standardized procedures. In addition, the shades under development were subjected to continuous extensive customer reviews both in Europe and in the USA. Not before Cercon ht was rated best in comparative (blind) customer testing against two leading competitors for all 16 classic Vita shades were those formulations “frozen” as references for the True Color Technology.



## Cercon ht for open systems - new plastic disk adapter

In the early stages of development, we had already decided not to clamp down on the Cercon base blank directly but to place the zirconia blank in a plastic adapter. The ultimate goal was secure and stress-free seating of the pre-sintered zirconia blank. Many competitors' materials are presented without an adapter, where the clamping forces are exerted directly on the zirconia. Other competitors use



simple plastic rings, which have certain shortcomings that arise from the low dimensions of the adapters. Based on 15 years of market experience, we developed the concept of plastic adapters for the Cercon ht disk 98 mm and our qualified machine partners: The adapter features “pockets” for a good peripheral bond. The maximum wall thickness of the adapter ensures safe and stress-free clamping in the respective CAM machine. A patent application has been filed for this concept.

## Cercon ht for open systems - optimized milling properties

Our Cercon system is closed on the material side and has finely attuned process components. The strength of the blank in the pre-sintered state is relatively low. For clients with open CAD/CAM systems we made suitable adjustments. Due to the different ways of interaction between blank holder, milling spindles and other tools as well

as milling strategies, higher loads during milling can result in edge breakouts or other milling errors. The selected sensitivity of the blank we selected - the best compromise between optimal milling properties and minimal tool wear rates - was developed and confirmed in intensive trials and broad-based field testing.

This means that we offer our customers and qualified equipment partners a maximum of security.



**Dr. Lothar Völkl**

Senior Manager  
Product Development,  
DeguDent, Hanau

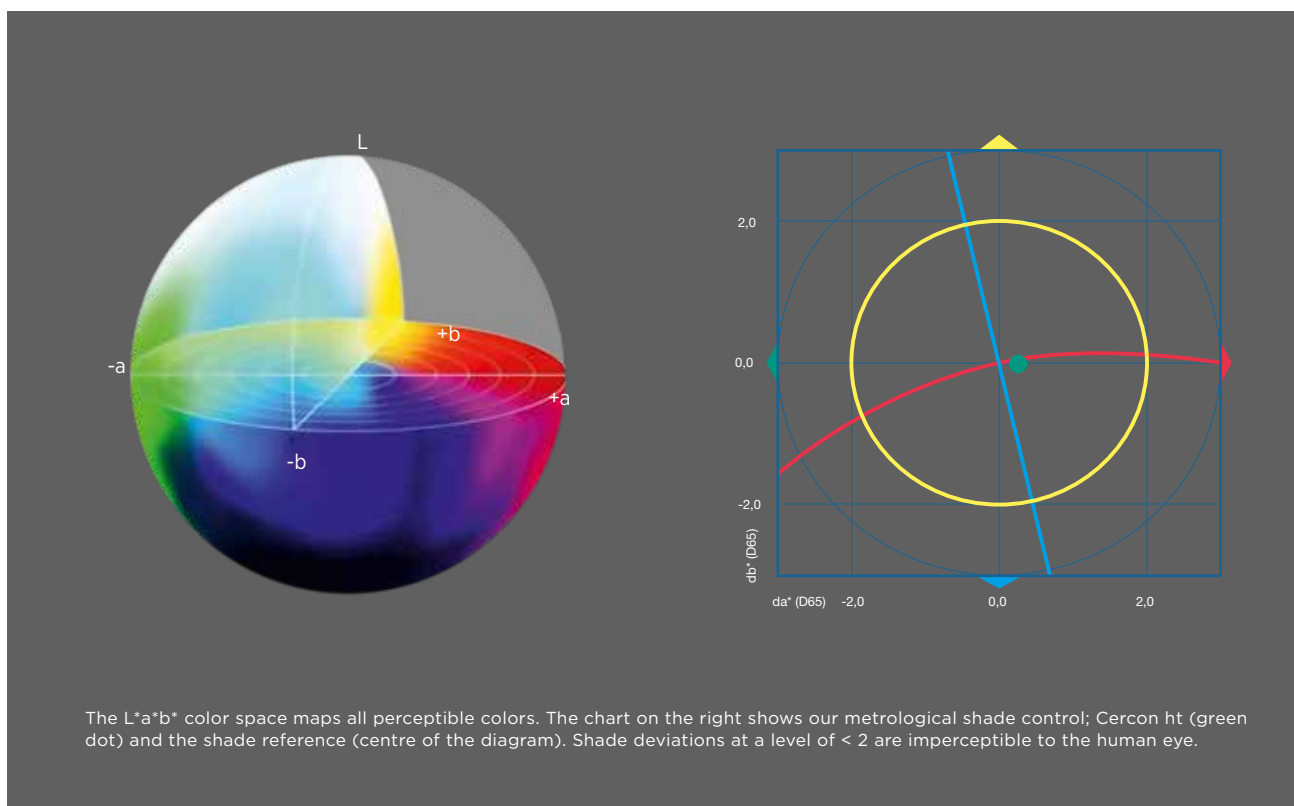


**Dipl. Ing. Stefan Fecher**

Manager Engineer and  
Rapid Technologies,  
DeguDent, Hanau

Cercon® ht in the 16 classic Vita shades

# True Color Technology



## The new zirconia standard for color accuracy

Color accuracy and shade reproduction are the central elements of ceramic restorations – and crucial for their success. With the True Color Technology and Cercon ht, we are defining a new benchmark in color accuracy.

The starting point was our ambition to offer Cercon ht them in the 16 classic Vita shades. Drawing on our expertise in monolithic and veneered ceramic materials and restorations, we developed the appropriate formulations and mixtures in-house to achieve a maximum of color accuracy. Shade results were constantly checked and re-checked both visually and using measuring devices. In so-called blind testing, dental technicians from Europe and the USA repeatedly compared the

shade formulations with other pre-colored zirconia materials available on the market. These tests were continued until Cercon ht was rated No. 1 in terms of shade accuracy on the part of the blind-test participants for all 16 classic Vita shades. By combining True Color Technology and the Cercon quality that has been clinically proven for nearly 15 years now, we are launching a new benchmark in the zirconium oxide technology.

## True Color Technology

We set new standards with Cercon ht zirconia and its color accuracy for classic Vita shade reproduction – in many respects:

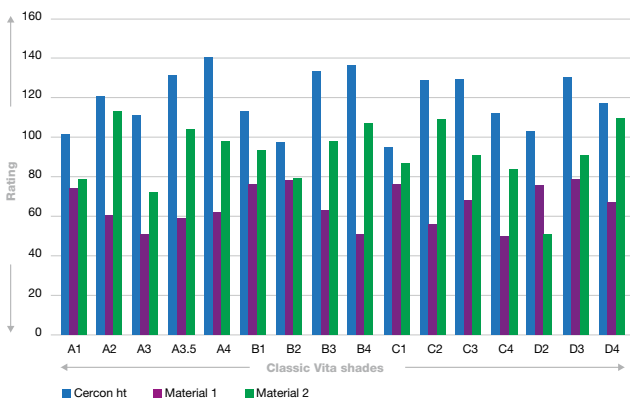
- We have decades of expertise in ceramic shade reproduction
- We have developed our own mixing and shade formulations
- We select and choose special shade pigments
- Our production process (mixing, pressing, pre-sintering) and in-process control guarantee consistent quality from batch to batch
- That we obtain the best possible shade results has been confirmed for us by customers in Europe and the USA





## Blind testing

In addition to our use of analytical shade measurements, customers from Europe and the USA visually compared Cercon ht in the 16 classic Vita shades with two leading competitors' materials on an ongoing basis. Only after the color accuracy had been evaluated as No. 1 for each of them, these formulations became the benchmark for the new Cercon ht disks in the 16 classic Vita shades.



Evaluation of the color accuracy of Cercon ht based on the 16 classic Vita shades by participants from Europe and the USA in blind testing.

## Testimonials from the test

“ I had not realized there were such great fluctuations in the accuracy of Vita shades on the market. Especially not when comparing highly reputable manufacturers.

“ The reproducibility of the 16 Vita shades within the staining concept has truly convinced me.

# Performance levels



One disk -  
five  
performance  
levels

## For all performance levels in the laboratory and in the practice

Different indications, different patient requirements, different performance levels. The pressure on laboratories is high to reflect these differences in economic terms. The range of performance levels that can be achieved with Cercon ht and the True Color Technology, and offered by laboratories on economically viable terms, is structured accordingly.

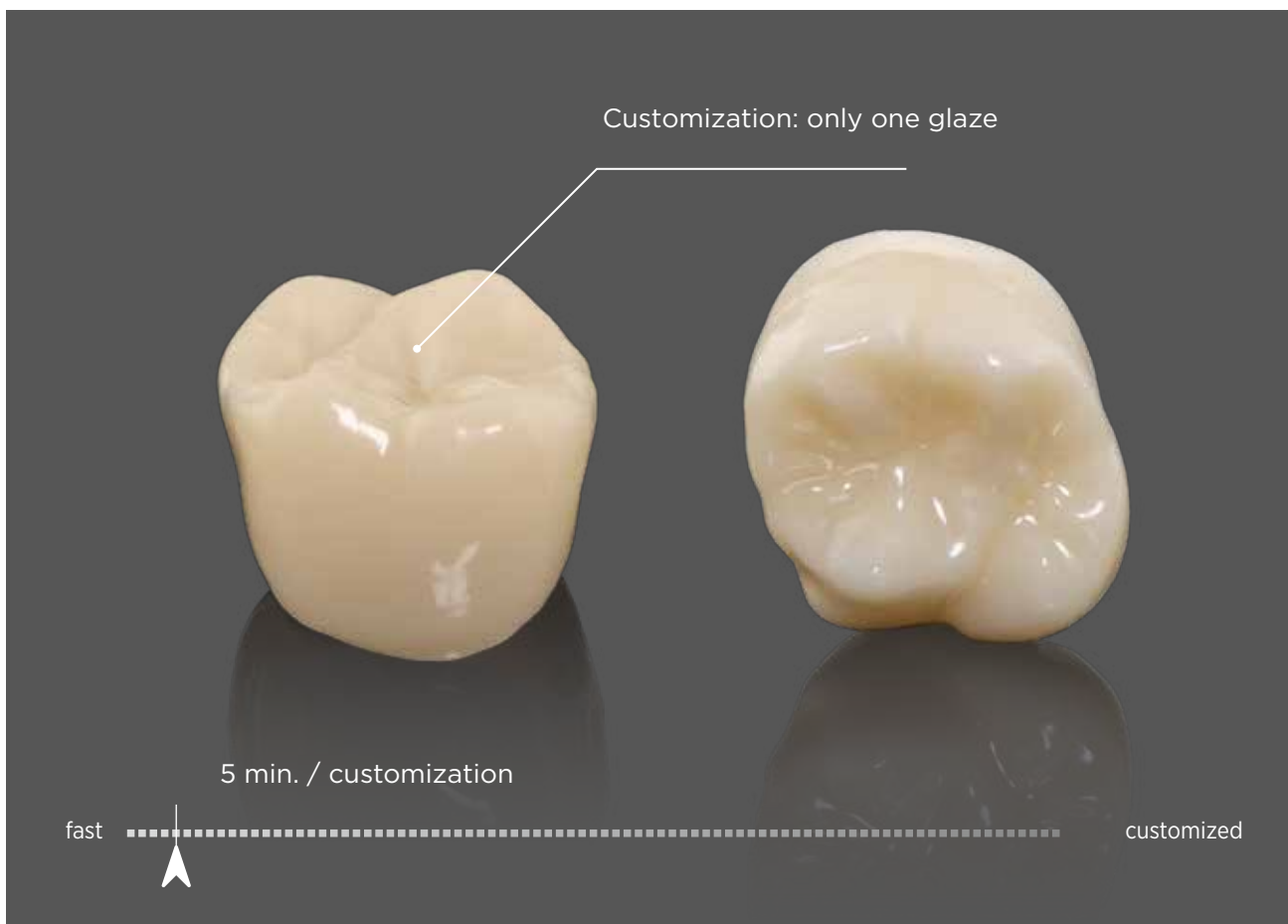
For your laboratory, this means: High color accuracy and reproduction at your desired performance levels in less time. High-quality, flexible and economical.

## Performance levels at a glance

- 1 Monolithic glazed-only restorations are the entry level of all-ceramic restoration options for single- and multi-unit restorations
- 2 Monolithic restorations characterized by staining offer somewhat more valuable esthetic results and allow more conservative tooth preparations
- 3 The cut-back technique can be used to obtain restorations in both the anterior and posterior regions with high color accuracy
- 4 Monolithic and partly and fully veneered aspects can be combined in a restoration as required and needed
- 5 Full veneering offers maximum customization options

Performance level

# Glazed only



## Monolithic restorations, glazed only

Monolithic Cercon ht crowns and bridges offer high strength and the option of a conservative tooth preparation with conventional cementing.

Whether placed on natural tooth preparations or implants - Cercon ht at the appropriately selected tooth shade provides dentists and patients with entry-level all-ceramics using only one glaze firing. Cost-effective for the patient, yet economical for the laboratory.

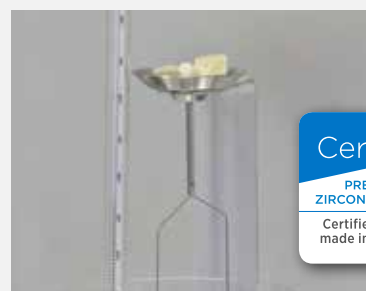
Select the Cercon ht disk in the corresponding tooth shade; mill; glaze - done.

- + High strength
- + All-ceramics with a single glaze
- + An interesting entry point to digital dentistry
- + Cost-effective for the patient
- + Economical for the dental laboratory



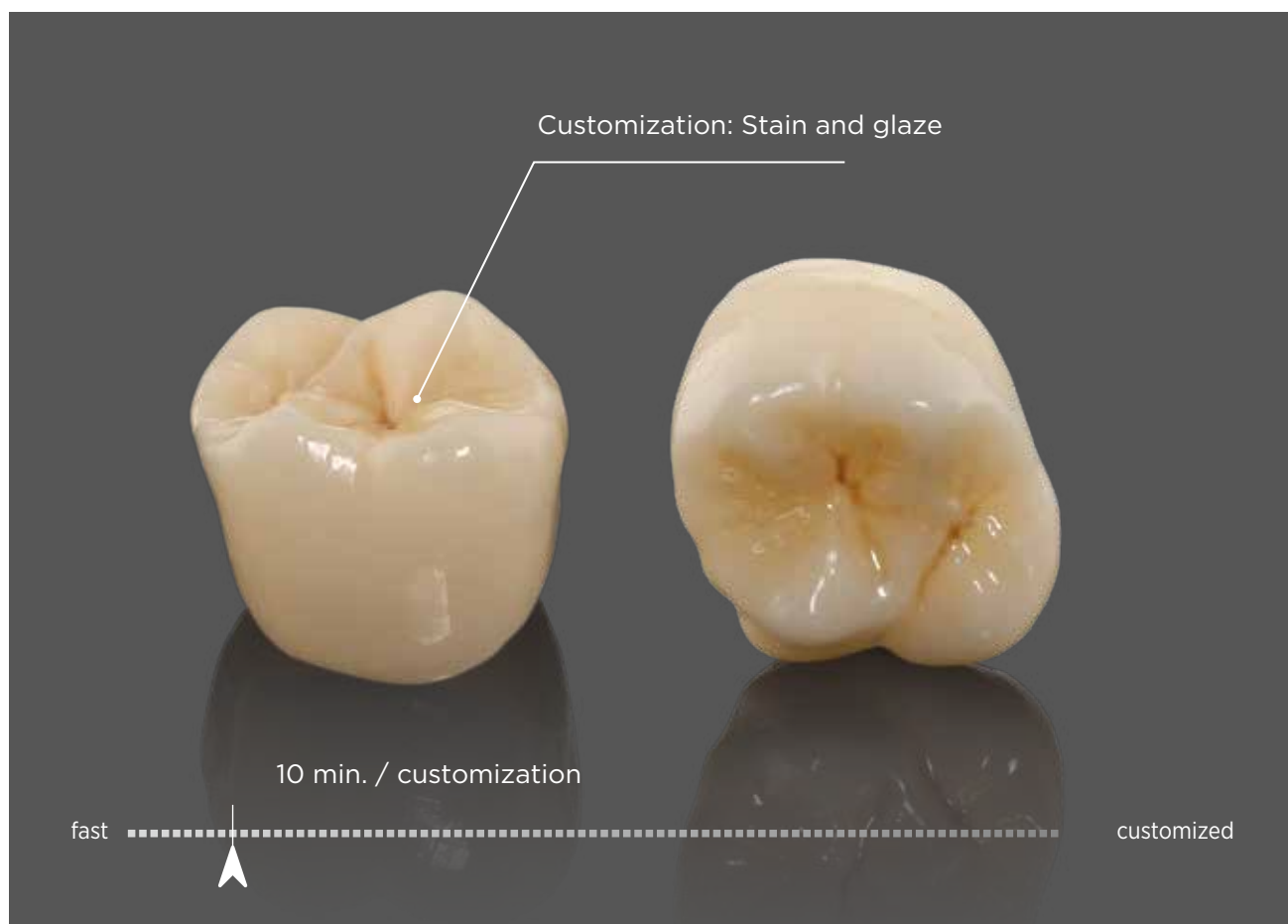
### DID YOU KNOW?

Density measurements: The primary objective of the density measurements is to test and guarantee the homogeneity of Cercon ht. Among other things, this ensures that the required physical characteristics are homogeneously present in the material and the restoration made from it.



Performance level 2

# Customized and glazed



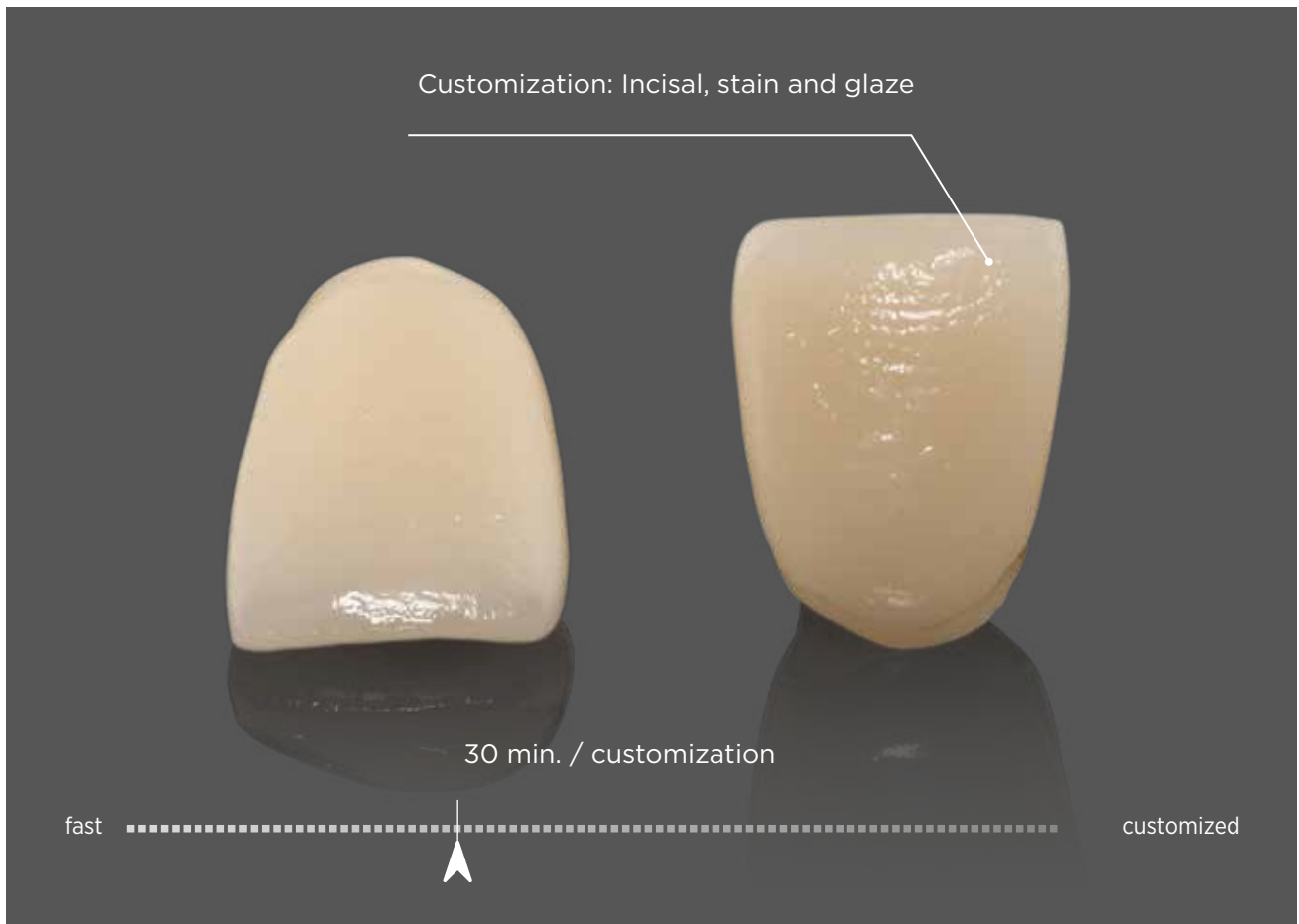
## Monolithic restorations, stained and glazed

This technique with individual characterization of the restoration with stains provides a higher level of esthetics while making use of all the advantages of monolithic restorations. High strength, minimal loss of tooth hard tissue, conventional cementation, an interesting entry level to more advanced all-ceramic options.

- + Customization options
- + All the advantages of monolithic restorations
- + An interesting entry point to customized dentistry



# Cut-back technology



## Cut-back technique

The highly translucent Cercon ht zirconia with the True Color Technology are the new benchmark in terms of color accuracy and shade reproduction for the 16 classic Vita shades. Whether in the anterior or the posterior region - the quick and easy shade implementation gives rise to a wide range of esthetic possibilities. Select the Cercon ht disk in the corresponding classic Vita shade; cut back the framework in the incisal area only - and you are ready to give the restoration their individual touch and esthetics using incisals and opals in exactly the desired tooth shade, quickly and efficiently.

- + Customization with incisals and opals
- + Fast and efficient reproduction of the classic Vita shades

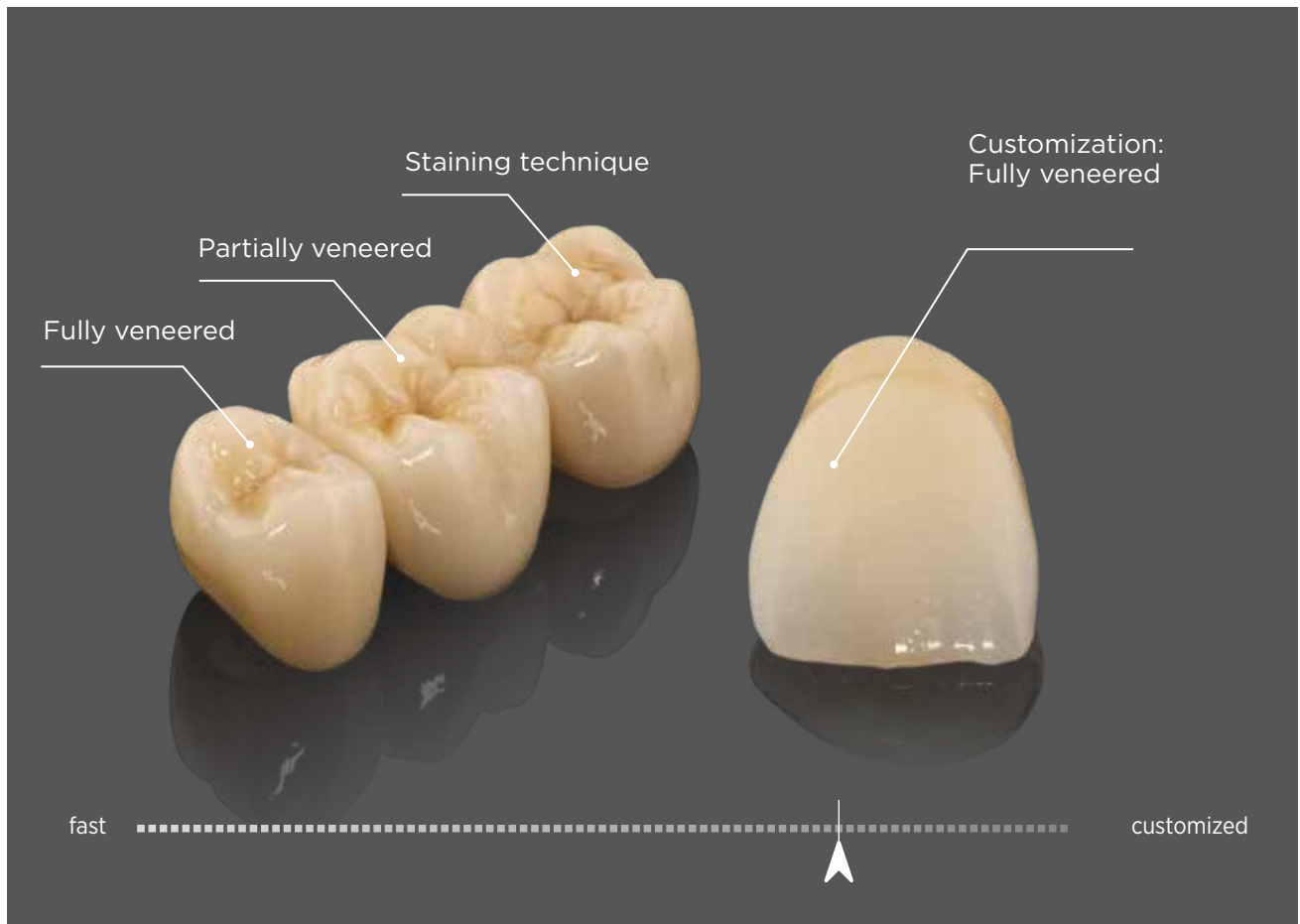


### DID YOU KNOW?

**Dilatometer:** The dilatometer determines the thermal expansion of a specimen, for example Cercon ht, as a function of temperature. The derived CTE (coefficient of thermal expansion) plays a crucial role in the interaction with the veneering material, but also in the behaviour of the material in the cemented state.



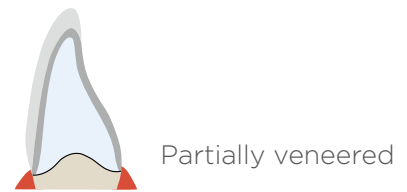
# Combining multiple techniques



## Combining multiple techniques

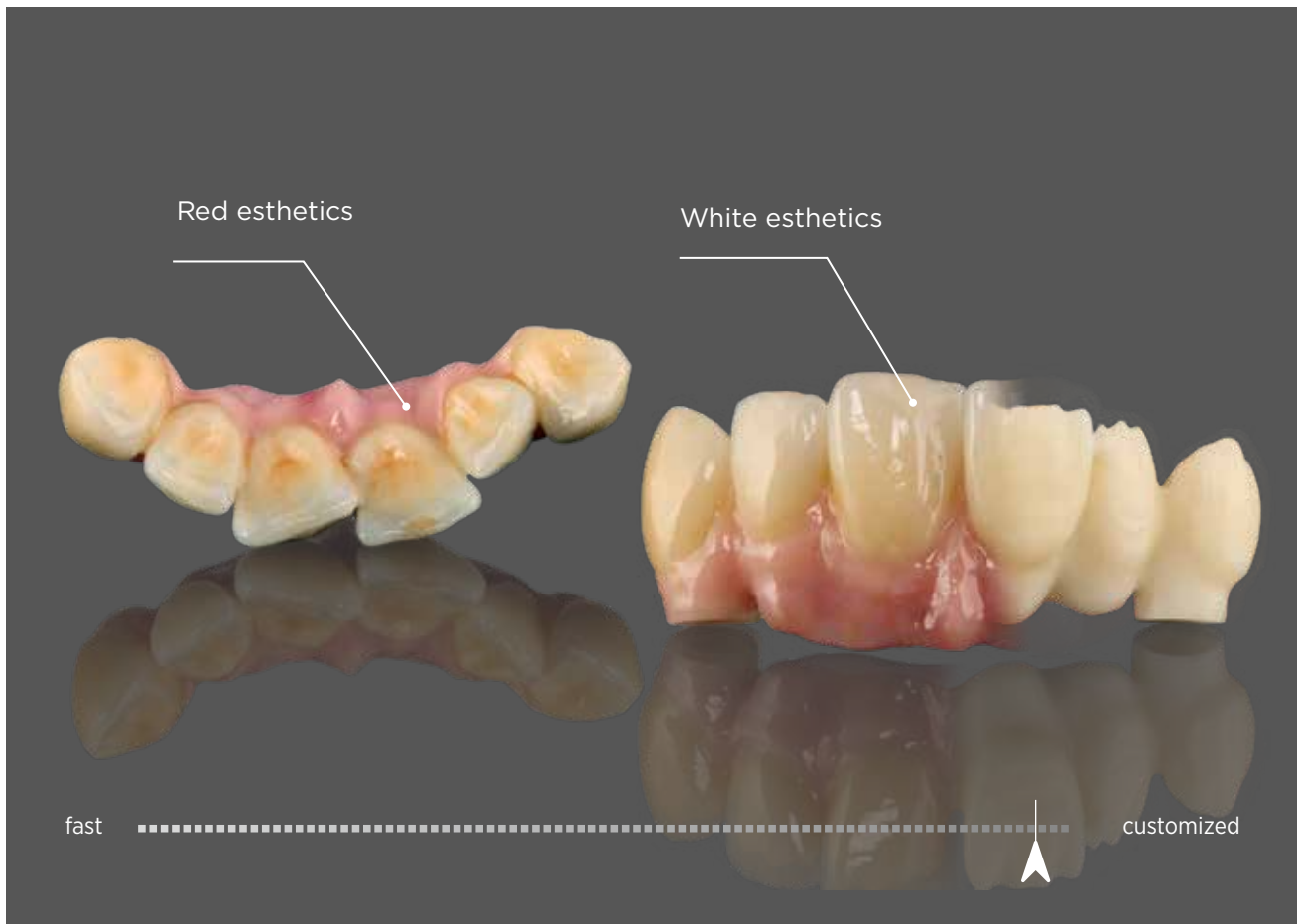
Whether space conditions are unfavourable, a conservative tooth preparation is desired or there should be a gradient of individual esthetics from the anterior to the posterior region - there will always be an appropriate all-ceramic solution and options that fit the patient's economy, all made possible by cooperation between the lab and the dental office. Whether monolithic, cut-back technique, partially or fully veneered - all-ceramic restorations of this kind cover a broad range of prosthetic indications and performance.

- + Broad range of prosthetic indications and performance
- + All-ceramic concepts and optimized designs for specific indications



Performance level 5

# Unlimited customization



## Unlimited customization

Here you can employ your skills and expertise in all-ceramics to the fullest. Complex esthetic demands and requirements or gingival replication at the highest professional level. Cercon ht with the True Color Technology give you a clinically proven foundation with high color accuracy that you can build on. With Cercon ceram Kiss and the new Kiss Artist Kit you can reproduce, for example, 24 gingival shades. And your white esthetics will have no limits (see images above and on the right).



- + For complex esthetic demands and requirements
- + Unlimited red and white esthetics
- + Dental work at the highest level

# Zirconia for open systems



## Qualified CAD/CAM partners

The high-performance zirconia material Cercon ht is available for almost all CAD/CAM systems as 98 mm disks for sophisticated restorations. Benefit from our over 15 years of zirconia expertise with Cercon, the arguably best-proven zirconia material with the best clinical documentation. We have examined and qualified Cercon ht in extensive tests on the leading open CAD/CAM systems. We adapted the blank strength in the sintered state to their specific requirements and developed an optimized disk adapter. Brain Expert/Xpert users continue to enjoy the advantages of their system and, of course, the Cercon ht 105 mm disks in 16 classic Vita shades.

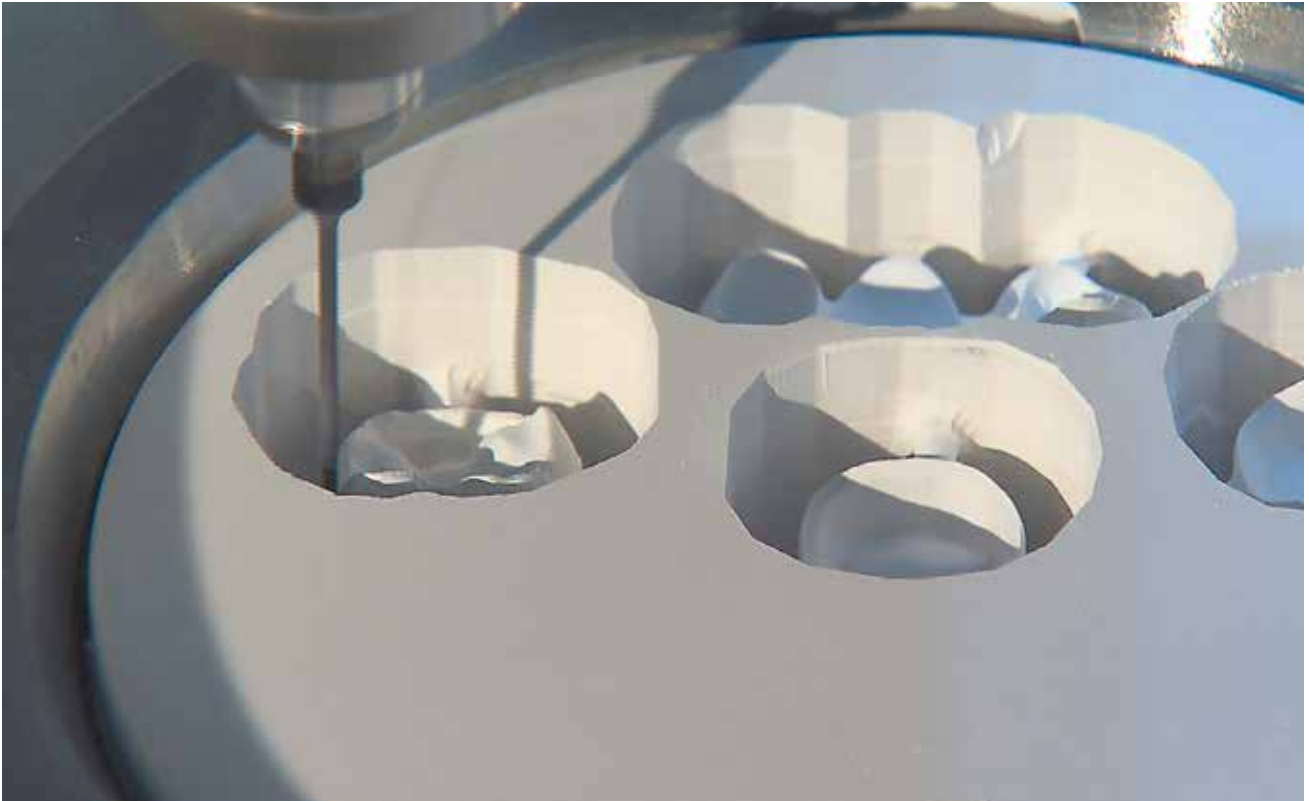


### DID YOU KNOW?

**Pre-sintering:** The material is pre-sintered in a temperature-controlled process. This serves to control the strength of the material, which is ideally suited for milling in dental milling units. High edge stability and a high-quality surface finish are the results of this systematic adaptation.







## New disk adapter

The disk adapter, specially developed for 98 mm disks (patent pending), lets you process Cercon ht in your dental milling unit, well secured in place and passively fitting.

Adhesive attachment of the disk adapter across the entire contact surface and the invariable wall thickness make for maximum precision and durability throughout the entire milling process.

The strength of the Cercon ht disk in the pre-sintered (green) state adjusted for open systems after extensive testing. Edge stability, marginal fit and detail representation are ensured.



## Customer testimonials

” Super easy with excellent results. Simply insert, mill and sinter.

” No chipped edges or cracks in the material.

” The adapter ring makes it easy to insert the disk safely, and the material is wonderfully well-behaved throughout during the entire process.

” I am delighted with the easy handling of Cercon ht in my milling unit.

6 out of 16

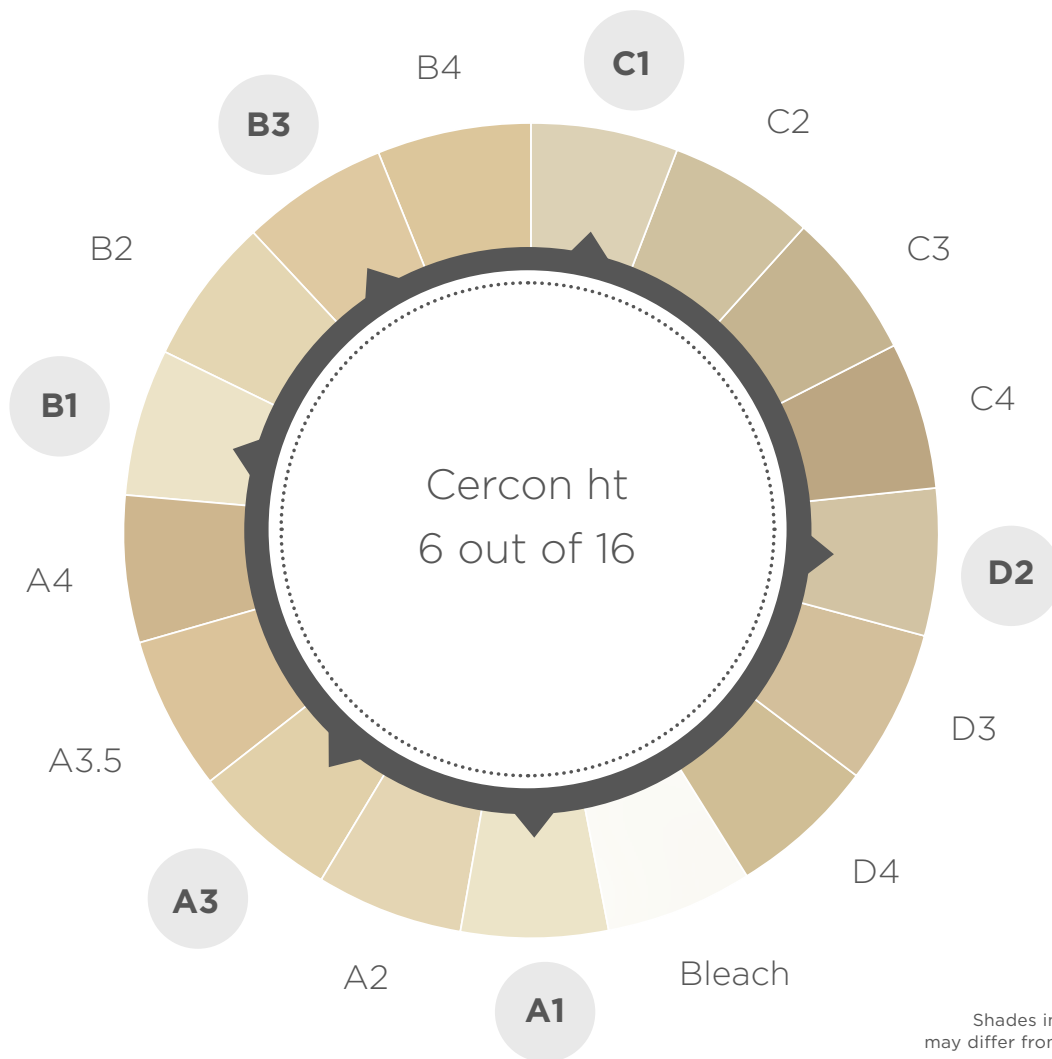
# The sleek color scheme

6 out of 16

With Cercon ht in the 16 Vita shades you can produce restorations of different performance levels in the laboratory. However, if you want to use a slimmed-down variant of the system in terms of shade usage, you can use the “6 out of 16” color selection.



Clear labelling and color coding of the A, B, C, D and Bleach shades simplifies your inventory.



Schematic diagram  
Shades in the printed material may differ from reality for technical reasons.

## With 6 out of 16 and the Cercon TCT (True Color Technology) stains

Just 6 Cercon ht disks in shades A1, A3, B1, B3, C1, D2 plus the Cercon TCT stains reproduce the 16 classic Vita shades using the staining technique. This is another, extended option for using the system for the fabrication of economical monolithic restorations in the lab.



V-SHADE	DISK-SHADE	1ST STAIN FIRING Stain/glaze	2ST STAIN FIRING Stain/glaze	Incisal
A1	A1*	Stain 3, some olive		Stains i1 + i2
A2	A1	Stains 2 + 3, some olive		Stains i1 + i2, white
A3	A3*	Stains 1 + 3		Stains i1 + i2
A3,5	A3	Olive	Stain 3	Stains i1 + i2
A4	A3	Stains 1 + 3	Stain 3	Stains i1 + i2
B1	B1*	Stain 3		Stains i1 + i2
B2	B1	Stains 3 + +4		Stain i1 + white
B3	B3*	Stains 2 + +3		Stains i1 + i2
B4	B3	Stains 3 + 4, some olive + sunset		Stains i1 + i2
C1	C1*	Stain 3		Stains i1 + i2
C2	C1	Stain 3		Stains i1 + i2
C3	C1	Stain 3		Stains i1 + i2
C4	C1	Stain 3, some olive		Stains i1 + i2
D2	D2*	Stain 4		Stains i1 + i2
D3	D2	Stain 4		Stains i1 + i2
D4	D2	Stain 3, some olive	Stain 3, some sunset	Stains i1 + i2

\* Stains are only necessary for individualisation not for coloring.

## Excerpt from the clinical guideline

# Indications for veneered and fully contoured restorations made of Cercon base and Cercon ht

### 15 years of consistent innovation

Since the launch of Cercon, the zirconia-based advanced ceramic system, 15 years ago, its indication range has been continually broadened based on consistent improvements in the material.

Whereas the first available variant (Cercon base) was designed exclusively for the production of veneered restorations, implant abutments and telescope crowns, the development of new, highly translucent variants (Cercon ht) have made it possible to improve the optical properties of the framework materials. In addition, Cercon ht exhibits a very low antagonist abrasion when polished. Thus, both veneered and fully contoured Cercon restorations can now be produced for the following indications:

### Veneered restorations

- Fully or partially veneered crowns in the anterior and posterior region
- Fully or partially veneered anterior or posterior bridges without cantilevers with a maximum of 2 adjacent pontics
- Fully or partially veneered anterior or posterior bridges up to the second molar with cantilevers (cantilever of no more than one premolar width)
- Other indications

### Implant abutments Telescopic crowns

- Custom-made and prefabricated implant abutments
- Ceramic double crowns





Source:  
Cercon – Clinical guideline/  
Clinical evidence 02/2015

## Monolithic restorations

Fully contoured (monolithic) restorations characterized exclusively by a framework-dyeing process and by staining are suitable for the following indications:

- Full contoured crowns in the posterior region
- Fully contoured anterior or posterior bridges without cantilevers with a maximum of 2 adjacent pontics
- Fully anatomical bridges with a cantilever of no more than one premolar width in the posterior region

Veneered and fully contoured Cercon restorations (except adhesive bridges) can be used to restore both natural teeth and implants.

## Contraindications

Veneered restorations are contraindicated in the following situations:

- Bruxism
- Insufficient available space

## Restoration types that are not approved

In addition, it should be noted that implant superstructures carry an inherently increased risk of technical complications in the form of veneer fracture. Multi-unit implant-supported bridges should therefore be designed as fully contoured restorations.

The following indications are not sufficiently clinically backed at this time and are therefore not approved by the manufacturer:

- Inlay bridges
- Custom-made endodontic posts
- Custom-made endosseous implants



# Ordering Information

## Cercon ht disk 98 mm

Shade	Description	REF
A1	Cercon ht A1 disk 98 12	5366091012
	Cercon ht A1 disk 98 14	5366091014
	Cercon ht A1 disk 98 18	5366091018
	Cercon ht A1 disk 98 25	5366091025
A2	Cercon ht A2 disk 98 12	5366091112
	Cercon ht A2 disk 98 14	5366091114
	Cercon ht A2 disk 98 18	5366091118
	Cercon ht A2 disk 98 25	5366091125
A3	Cercon ht A3 disk 98 12	5366091212
	Cercon ht A3 disk 98 14	5366091214
	Cercon ht A3 disk 98 18	5366091218
	Cercon ht A3 disk 98 25	5366091225
A3,5	Cercon ht A3,5 disk 98 12	5366091312
	Cercon ht A3,5 disk 98 14	5366091314
	Cercon ht A3,5 disk 98 18	5366091318
	Cercon ht A3,5 disk 98 25	5366091325
A4	Cercon ht A4 disk 98 12	5366091412
	Cercon ht A4 disk 98 14	5366091414
	Cercon ht A4 disk 98 18	5366091418
	Cercon ht A4 disk 98 25	5366091425
B1	Cercon ht B1 disk 98 12	5366091512
	Cercon ht B1 disk 98 14	5366091514
	Cercon ht B1 disk 98 18	5366091518
	Cercon ht B1 disk 98 25	5366091525
B2	Cercon ht B2 disk 98 12	5366091612
	Cercon ht B2 disk 98 14	5366091614
	Cercon ht B2 disk 98 18	5366091618
	Cercon ht B2 disk 98 25	5366091625
B3	Cercon ht B3 disk 98 12	5366091712
	Cercon ht B3 disk 98 14	5366091714
	Cercon ht B3 disk 98 18	5366091718
	Cercon ht B3 disk 98 25	5366091725
B4	Cercon ht B4 disk 98 12	5366091812
	Cercon ht B4 disk 98 14	5366091814
	Cercon ht B4 disk 98 18	5366091818
	Cercon ht B4 disk 98 25	5366091825
C1	Cercon ht C1 disk 98 12	5366091912
	Cercon ht C1 disk 98 14	5366091914
	Cercon ht C1 disk 98 18	5366091918
	Cercon ht C1 disk 98 25	5366091925
C2	Cercon ht C2 disk 98 12	5366092012
	Cercon ht C2 disk 98 14	5366092014
	Cercon ht C2 disk 98 18	5366092018
	Cercon ht C2 disk 98 25	5366092025
C3	Cercon ht C3 disk 98 12	5366092112
	Cercon ht C3 disk 98 14	5366092114
	Cercon ht C3 disk 98 18	5366092118
	Cercon ht C3 disk 98 25	5366092125

Shade	Description	REF
C4	Cercon ht C4 disk 98 12	5366092212
	Cercon ht C4 disk 98 14	5366092214
	Cercon ht C4 disk 98 18	5366092218
	Cercon ht C4 disk 98 25	5366092225
D2	Cercon ht D2 disk 98 12	5366092312
	Cercon ht D2 disk 98 14	5366092314
	Cercon ht D2 disk 98 18	5366092318
	Cercon ht D2 disk 98 25	5366092325
D3	Cercon ht D3 disk 98 12	5366092412
	Cercon ht D3 disk 98 14	5366092414
	Cercon ht D3 disk 98 18	5366092418
	Cercon ht D3 disk 98 25	5366092425
D4	Cercon ht D4 disk 98 12	5366092512
	Cercon ht D4 disk 98 14	5366092514
	Cercon ht D4 disk 98 18	5366092518
	Cercon ht D4 disk 98 25	5366092525
BL	Cercon ht BL disk 98 12	5366092612
	Cercon ht BL disk 98 14	5366092614
	Cercon ht BL disk 98 18	5366092618
	Cercon ht BL disk 98 25	5366092625

## Cercon ht disk 105 mm

Shade	Description	REF
A1	Cercon ht A1 disk 12	5366081012
	Cercon ht A1 disk 14	5366081014
	Cercon ht A1 disk 18	5366081018
	Cercon ht A1 disk 25	5366081025
	Cercon ht A1 disk 30	5366081030
A2	Cercon ht A2 disk 12	5366081112
	Cercon ht A2 disk 14	5366081114
	Cercon ht A2 disk 18	5366081118
	Cercon ht A2 disk 25	5366081125
A3	Cercon ht A3 disk 12	5366081212
	Cercon ht A3 disk 14	5366081214
	Cercon ht A3 disk 18	5366081218
	Cercon ht A3 disk 25	5366081225
	Cercon ht A3 disk 30	5366081230
A3,5	Cercon ht A3,5 disk 12	5366081312
	Cercon ht A3,5 disk 14	5366081314
	Cercon ht A3,5 disk 18	5366081318
	Cercon ht A3,5 disk 25	5366081325
	Cercon ht A3,5 disk 30	5366081330
A4	Cercon ht A4 disk 12	5366081412
	Cercon ht A4 disk 14	5366081414
	Cercon ht A4 disk 18	5366081418
	Cercon ht A4 disk 25	5366081425
	Cercon ht A4 disk 30	5366081430

Shade	Description	REF
B1	Cercon ht B1 disk 12	5366081512
	Cercon ht B1 disk 14	5366081514
	Cercon ht B1 disk 18	5366081518
	Cercon ht B1 disk 25	5366081525
	Cercon ht B1 disk 30	5366081530
B2	Cercon ht B2 disk 12	5366081612
	Cercon ht B2 disk 14	5366081614
	Cercon ht B2 disk 18	5366081618
	Cercon ht B2 disk 25	5366081625
	Cercon ht B2 disk 30	5366081630
B3	Cercon ht B3 disk 12	5366081712
	Cercon ht B3 disk 14	5366081714
	Cercon ht B3 disk 18	5366081718
	Cercon ht B3 disk 25	5366081725
	Cercon ht B3 disk 30	5366081730
B4	Cercon ht B4 disk 12	5366081812
	Cercon ht B4 disk 14	5366081814
	Cercon ht B4 disk 18	5366081818
	Cercon ht B4 disk 25	5366081825
	Cercon ht B4 disk 30	5366081830
C1	Cercon ht C1 disk 12	5366081912
	Cercon ht C1 disk 14	5366081914
	Cercon ht C1 disk 18	5366081918
	Cercon ht C1 disk 25	5366081925
	Cercon ht C1 disk 30	5366081930
C2	Cercon ht C2 disk 12	5366082012
	Cercon ht C2 disk 14	5366082014
	Cercon ht C2 disk 18	5366082018
	Cercon ht C2 disk 25	5366082025
	Cercon ht C2 disk 30	5366082030
C3	Cercon ht C3 disk 12	5366082112
	Cercon ht C3 disk 14	5366082114
	Cercon ht C3 disk 18	5366082118
	Cercon ht C3 disk 25	5366082125
	Cercon ht C3 disk 30	5366082130
C4	Cercon ht C4 disk 12	5366082212
	Cercon ht C4 disk 14	5366082214
	Cercon ht C4 disk 18	5366082218
	Cercon ht C4 disk 25	5366082225
	Cercon ht C4 disk 30	5366082230
D2	Cercon ht D2 disk 12	5366082312
	Cercon ht D2 disk 14	5366082314
	Cercon ht D2 disk 18	5366082318
	Cercon ht D2 disk 25	5366082325
	Cercon ht D2 disk 30	5366082330
D3	Cercon ht D3 disk 12	5366082412
	Cercon ht D3 disk 14	5366082414
	Cercon ht D3 disk 18	5366082418
	Cercon ht D3 disk 25	5366082425
	Cercon ht D3 disk 30	5366082430

Shade	Description	REF
D4	Cercon ht D4 disk 12	5366082512
	Cercon ht D4 disk 14	5366082514
	Cercon ht D4 disk 18	5366082518
	Cercon ht D4 disk 25	5366082525
	Cercon ht D4 disk 30	5366082530
BL	Cercon ht disk 12	5366082612
	Cercon ht disk 14	5366082614
	Cercon ht disk 15	5366080415
	Cercon ht disk 18	5366082618
	Cercon ht disk 20	5366080420
	Cercon ht disk 25	5366080425
	Cercon ht disk 30	5366080430
light	Cercon ht light disk 15	5366080615
	Cercon ht light disk 20	5366080620
	Cercon ht light disk 25	5366080625
	Cercon ht light disk 30	5366080630
medium	Cercon ht medium disk 15	5366080715
	Cercon ht medium disk 20	5366080720
	Cercon ht medium disk 25	5366080725
	Cercon ht medium disk 30	5366080730

## Cercon TCT Stain & Glaze

Description		REF
Cercon TCT Stain Kit 1x Universal Stain & Glaze Liquid 1x Cercon TCT Glaze, 15x Cercon TCT Stains		D651590
DENTSPLY Prosthetics Universal Stain & Glaze Liquid	15 ml	D601315
DENTSPLY Prosthetics Universal Stain & Glaze Liquid	50 ml	D601350
Cercon TCT Glaze	5g	D651322
Cercon TCT Stain 0	5g	D651500
Cercon TCT Stain 1	5g	D651501
Cercon TCT Stain 2	5g	D651502
Cercon TCT Stain 3	5g	D651503
Cercon TCT Stain 4	5g	D651504
Cercon TCT Stain i1	5g	D651511
Cercon TCT Stain i2	5g	D651512
Cercon TCT Stain white	5g	D651520
Cercon TCT Stain creme	5g	D651521
Cercon TCT Stain sunset	5g	D651522
Cercon TCT Stain copper	5g	D651523
Cercon TCT Stain khaki	5g	D651524
Cercon TCT Stain olive	5g	D651525
Cercon TCT Stain mahogany	5g	D651526
Cercon TCT Stain violet	5g	D651505

## Product description

### Cercon® ht

Cercon ht blanks are made of yttrium oxide- (yttria-) stabilized zirconium oxide (zirconia) (Y-TZP). They are used in fabricating frameworks for fixed prosthetic restorations. The material is an oxide ceramic material characterized by its particularly high strength. Depending on the framework design, Cercon ht frameworks can be ceramically veneered or delivered as fully contoured restorations. Which blank is selected will depend on the tooth shade to be reproduced and the space available for the veneer.

With fully contoured restorations, no space is required for the ceramic veneer, which may allow the dentist to preserve more of the tooth substance during preparation.

Framework materials	Zirconium oxide (Y-TZP)
Temporary cementation	Possible (for fully contoured restorations)
Definitive cementation	<ul style="list-style-type: none"> <li>Adhesive cementing</li> <li>Conventional cementing</li> </ul>

Objects are individually fabricated to your digital design specifications such as anatomic contour, framework and wall thickness, connector diameter and cementing gap.

## Technical specifications

- Type II, class 5 (pursuant to DIN EN ISO 6872:2015)
- CTE: 10,5 µm/m · K (25–500°C)
- Modulus of elasticity: 210 GPa
- Flexural strength: approx. 1,200 MPa (three-point flexural testing)

### Composition:

- Zirconium oxide
- Yttrium oxide 5%
- Hafnium oxide < 3%
- Aluminium oxide
- Silicon oxide < 1%

### Indications in the anterior and posterior segments:

- 2-piece abutments\*
- Conical and telescope crowns
- Crowns
- Multi-unit bridges (up to 16 units, with no more than two pontics between abutment crowns)\*\*
- Bridges with cantilevered pontics with at least two abutment teeth (up to the second premolar)

\*Not valid in the US

\*\*In Canada: Limited to up to 6 units



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28372 / REV 2017-11