SIRONA CAD/CAM MATERIALS

Top quality geared to challenging applications.

inLab/CEREC CERTIFIED

The hallmark of responsible dentistry.

Dental professionals and patients are unanimous: metal restorations should be avoided if at all possible. By contrast, all-ceramic materials offer outstanding benefits. They are biocompatible, display enamel-like mechanical properties and allow you to conserve the natural tooth tissue. inLab and CEREC are the stepping stones to modern ceramic dentistry. Thanks to the new "inLab/CEREC CERTIFIED" seal of quality, you can tell at a glance which materials are tailored to your inLab or CEREC system. This ensures optimum results – for your patients, for your professional reputation and for the profitability of your dental practice. **Enjoy every day. With Sirona.**

inLab CERTIFIED CEREC

inLab/CEREC CERTIFIED – the benefits in brief:

- High-performance materials that meet the highest standards in terms of machinability and precision
- Specific machining parameters for each of the many original materials
- Unlimited compatibility with the Sirona milling units
- Direct block selection in the inLab and CEREC 3D software
- Optimum material processing for high-quality restorations

ORIGINAL SIRONA MATERIALS – SYSTEMATIC EXPERTISE

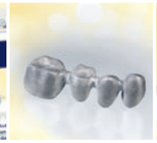
You can't beat practical experience.

All-ceramic restorations fabricated on Sirona's CAD/CAM systems have been proven many millions of times. And we are continuously working to expand the spectrum of clinical indications, thus ensuring that more patients than ever before gain access to state-of-the-art aesthetic dentistry. In this context we have developed a range of high-performance materials that deliver excellent precision and are perfectly matched to Sirona's innovative CAD/CAM software and milling machines.

infiniDent*

The smart outsourcing service.

infiniDent – Sirona's centralized production is your passport to a complete spectrum of outsourcing services. This enables you to boost the efficiency of your dental lab and exploit our special skills in the area of crown and bridge frameworks made of ceramics and precious/non-precious metals.



1. Scanning
You scan the model using the inEos system or the built-in laser scanner and design the restoration.

2. Data transfer
Then you go to the infinDent web portal www.infinident.com, enter your password (new users must register first) and upload the data.

3. Production
After the data has been checked the restoration is machined on computer-controlled milling units or a laser sintering system. This is followed by quality assurance and dispatch to the customer. The entire production process takes just three working days.

4. Finishing
All you need to do now is veneer the crown or framework.

Capitalize on new synergy effects:
- Simple procedure: scanning, data transmission via Internet and receipt of the finished work
- Expands your in-house portfolio to include long-span bridges and non-precious-metal alloys (up to 10 units in ZrO_2; up to 8 units in CoCr)
- Low-cost stepping stone to CAD/CAM technology in combination with the inEos scanner
- No need to invest in a sintering furnace: infiniDent mills and sinters zirconium oxide frameworks

infiniDent caters for the following indications:
- Copings and 10-unit bridge frameworks made of **inCoris ZI**
- Copings and 3-unit bridge frameworks made of **inCoris AL**
- Copings and bridge frameworks made of infiltration ceramics (max. anatomical length: 40 mm)
- Copings and 8-unit bridge frameworks made of **inCoris NP** (cobalt-chrome)
- Titanium and zirconium abutments for the Straumann® Dental Implant System

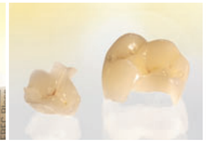
** infiniDent is currently available in the following countries: Germany, Austria, Switzerland, Belgium, Luxembourg, Netherlands, France, UK, USA, Italy, Australia.*

Further information is available in the brochure: "infiniDent – Sirona's central production".

CEREC Blocs & CEREC Blocs PC

True beauty comes from within.

The CEREC Blocs and CEREC Blocs PC consist of a finely structured feldspar ceramic material which is biocompatible and resembles natural tooth enamel in terms of its shading, strength and abrasion resistance. It is the ideal material for tissue-conserving, aesthetic chairside restorations.



CEREC Blocs – for enamel-like inlays, onlays, veneers and anatomically sized crowns
- Enamel-like abrasion resistance
- Pronounced translucency and chameleon effect
- Very good polishing characteristics
- Available in an extensive range of shades

CEREC Blocs PC – polychromatic material for natural-looking anterior and posterior crowns
- Natural enamel-dentine-cervix layering
- CEREC Blocs PC can be virtually aligned in the milling preview of the CEREC and inLab 3D software
- Interesting alternative to ceramic-faced crowns

The benefits for you:
The CEREC shade system helps you achieve the right colour matching. It combines the simplicity of the VITA Classical system and the diversity of the 3D Master system. Colour matching is easier than ever before thanks to the CEREC Blocs Shade Guide with its selection of real-life samples.

The CEREC Blocs Shade Guide
The CEREC Blocs Shade Guide contains 12 samples taken from original CEREC Blocs. Each sample is labelled with Sirona's own shade designation, as well as the corresponding VITA 3D Master and VITA Classical shades.

The right choice
- So far more than 20 million restorations have been created out of finely structured feldspar ceramic blocks
- Long-term studies have demonstrated that 95–97% of the crowns are still intact after four years[1]
- After 10 years the clinical survival rate of inlays and onlays is between 90 and 95%[2]

[1] *Source: Otto T, Computer-Aided Direct All-Ceramic Crowns: 4 Year Results. In Mörmann WH (ed.) State of the Art of CAD/CAM Restorations, 20 Years of CEREC, Berlin: Quintessence, 2006: Poster*
[2] *Source: Reiss B, Eighteen-Year Clinical Study in a Dental Practice. In Mörmann WH (ed.) State of the Art of CAD/CAM Restorations, 20 Years of CEREC, Berlin: Quintessence, 2006: 57–64*

CEREC Blocs/CEREC Blocs PC – product range and shade system

Colour	Size CEREC Blocs				Size CEREC Blocs PC		
	8	10	12	14	PC12	PC14	PC14/14
S2-T/S3-T/S4-T	■	■	■	■			
S0-M			■	■			
S1-M/S2-M/S3-M/S4-M/S5-M	■	■	■	■			
S2-O/S3-O/S4-O	■	■	■	■			
S2-PC/S3-PC/S4-PC					■	■	■

	S0-M (0M1C)		
	S1-M (A1C)		
S2-T (1M1C)	S2-M (1M2C)	S2-O (A2C)	S2-PC (1M2C)
S3-T (2M1C)	S3-M (2M2C)	S3-O (A3C)	S3-PC (2M2C)
S4-T (3M1C)	S4-M (3M2C)	S4-O (3M3C)	S4-PC (3M2C)
	S5-M (4M2C)		

Colour shades not binding.

incoris ZI & inCoris AL

The optimum solution for frameworks ...

The Sirona inCoris ZI and inCoris AL materials are the ideal basis for the cost-effective fabrication of high precision ceramic restorations – e.g. finely designed copings, bridge frameworks and custom abutments. Excellent biocompatibility goes hand in hand with perfect aesthetics.

inCoris ZI – zirconium oxide for high-strength bridge frameworks
- High-performance ceramic material for finely designed long-span frameworks
- High translucency fulfils stringent aesthetic requirements
- Outstanding fracture strength and longevity
- Excellent biocompatibility
- Easy to machine thanks to a high sintered density and small particle size
- Available in various sizes and in five different shades

The benefits for you:
The pre-shaded inCoris blocks save time and money. They deliver constant quality – and the user can dispense with immersion solutions and liners.
The inCoris ZI blocks promote the efficient utilization of materials. They are available as mono blocks (ideal for single-tooth restorations) or as maxi blocks for long-span bridges (inLab MC XL) – also in combination with inLab 3D Stack software.

inCoris AL – aluminium oxide for small-sized anterior bridges
- High-strength ceramic for high-precision frameworks
- Excellent biocompatibility
- High translucency – perfect aesthetics for anterior bridges with up to three units
- Suitable for dry milling in a sintered state – e.g. for primary telescopes
- Ideal for telescope crowns due to its ivory colour

inCoris ZI product range

Size inCoris ZI (L x W x H in mm)	inLab	inLab MC XL
mono S 14 x 13 x 13	■	■
mono L 20 x 19 x 15.5	■	■
40 x 19 x 15	■	■
55 x 19 x 15	■ (Flip)	■
65 x 25 x 22		■
maxi S 65 x 40 x 17		■
maxi L 85 x 40 x 22		■
meso S (for abutments)		■
meso L (for abutments)		■

Classification of block colours and tooth shades inCoris ZI

Block colours	A–D Shades
F 0.5	A1, B1
F 1	A2, B2, C1, C2, D2
F 2	A3, D3
F 3	A3.5, B3, C3, D4
F 4.5	A4, B4, C4

... and customized abutments.

Enhanced cost-effectiveness – inLab 3D Stack software
- Several milling jobs can be placed within a single block saving time and material costs
- Partly used blocks can be deployed at a later date
- inLab 3D Stack is suitable for reduced designs and frameworks of all kinds – and for milling on the MC XL

inCoris ZI meso – customized zirconium oxide abutments
- Special-purpose zirconium oxide blocks available in two different shades (F0.5 and F2) and sizes (S and L) with a prefabricated screw channel and anti-rotation device
- Matching Sirona scanbodies for various implant sizes facilitate the scanning of laboratory implants
- Design using the software inLab 3D for Abutments
- Produce on the MC XL milling unit
- After sintering the ceramic is bonded to the prefabricated titanium base
- Time savings in comparison with centralized production

inCoris ZI colour scheme

F 0.5 F 1 F 2 F 3 F 4.5

** Colour shades not binding.*

inCoris AL product range

Size inCoris AL (L x W x H in mm)	inLab	inLab MC XL
20 x 19 x 15.5	■	■
40 x 15 x 14	■	■
40 x 19 x 15.5	■	■

F 0.7

The new CEREC Optispray – precision at the touch of a button.

In combination with the CEREC Bluecam, CEREC Optispray speeds up and simplifies the acquisition of digital impressions. And at the same time delivers unprecedented levels of precision.

- Much easier to use than conventional scanning powder
- Preparation at the touch of a button – quick, simple, precise, hygienic
- The ultrathin, homogeneous coating enhances the imaging performance of the CEREC Bluecam, especially with regard to the preparation margins
- CEREC Optispray is water-soluble and easy to remove with the SPRAYVIT syringe

The new CEREC Stone BC modelling material.

In combination with the CEREC Bluecam the super-hard (Type IV) CEREC Stone BC allows you to create high-precision scannable models.

- CEREC Stone BC has been developed exclusively for use with CEREC Bluecam Bar attachment
- CEREC Stone BC has been optimized in terms of its optical properties including brightness and contrast

TECHNICAL DETAILS

Good to know.

	CEREC Blocs	inCoris ZI	inCoris AL
Milling units CEREC 3 inLab CEREC MC XL inLab MC XL	Step Bur 10, Cylinder Pointed Bur Step Bur 12, Cylinder Pointed Bur Step Bur 12 S, Cylinder Pointed Bur 12 S Step Bur 12 S, Cylinder Pointed Bur 12 S	Cylinder Pointed Bur Step Bur 20, Cylinder Pointed Bur 20	Step Bur 14, Cylinder Pointed Bur Step Bur 20, Cylinder Pointed Bur 20
Restoration design	Inlay Onlay Veneer Partial crown Anterior and posterior crowns	Copings Bridge frameworks Abutments Bar attachments	Copings Anterior bridge frameworks Abutments
Trimming	■ Only use diamond burs ■ Contour using fine grained diamond abrasives (40 µm) and pre-polish with 8 µm diamond finishing burs	■ When sintered use only a water-cooled handpiece (ca. 2.5–3 bar) or rubber polishers (low speed)	■ Sintered restorations can be trimmed dry by applying gentle pressure
Characterisation Polishing	Polish CEREC Blocs using flexible aluminium oxide (Al_2O_3) coated discs, polishing brushes and diamond paste. Ensure ample water cooling and apply only gentle pressure.	–	–
Glazing	As an alternative to polishing, the restoration can be glazed and then atmospherically fired in order to create a high gloss finish. This process can be delegated to your assistant.	–	–
Shading and glazing	To achieve particularly aesthetic results you can characterise the CEREC Bloc restorations with the VITA SHADING PASTES.	–	–
Veneering	CEREC Bloc restorations with thermal expansion coefficient 9.4 X 10^{-6}/K can be veneered locally using an appropriate ceramic material. This enables you to achieve outstanding results particularly in the anterior region.	Veneer using ceramic materials for use in combination with zirconium oxide (e.g. VITA VM 9)	Veneer using ceramic materials designed for use with aluminium oxide (e.g. VITA VM 7)
Bonding	Adhesive (Self-adhesive or dual bonding)	As per aluminium oxide ceramic	Use conventional (glass ionomer or zinc phosphate cements) or self- or dual-curing adhesives
Composition	SiO_2 56–64% weight Al_2O_3 20–23% weight Na_2O 6–9% weight K_2O 6–8% weight CaO 0.3–0.6% weight TiO_2 0.0–0.1% weight	$ZrO_2 + Y_2O_3 + HfO_2 > 99\,\%$ $Al_2O_3 < 0{,}5\,\%$ Other oxide < 0.5 %	$Al_2O_3 > 99.5\,\%$
Thermal expansion coefficient	9.4 X 10^{-6}/K	11.0 X 10^{-6}/K	7.2 X 10^{-6}/K
Flexural strength	150 MPa	1,200 MPa	> 500 MPa

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A mine of useful information.

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SIRONA – UNIQUE WORLDWIDE SYSTEMS EXPERTISE IN DENTAL EQUIPMENT PRODUCTS

Sirona develops and manufactures a comprehensive range of dental equipment, including CAD/CAM Systems for dental practices (CEREC) and laboratories (inLab), Instruments and Hygiene Systems, Treatment Centers and Imaging Systems. Sirona manufactures high technology products that guarantee ease of use and a high return on investment – for the good of your practice and for the benefit of your patients. In this way, you can approach every challenge that you face, confident in the knowledge that: **Enjoy every day. With Sirona.**

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