Sirona CAD/CAM materials

Top quality geared to challenging applications.
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. Enjoy every day. With Sirona.

All-ceramic restorations fabricated on Sirona’s CAD/CAM systems have been proven many millions of times for more than 25 years. 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.

Sirona Best Quality Label Guarantee:
- High-performance materials for maximum milling and precision requirements
- Individual milling parameters for each material
- Unlimited compatibility with Sirona’s milling units
- Direct material selection in the inLab and CEREC software
- Materials are optimally compatible with the milling process for high-quality restorations

Every inCoris package now includes a labeling set allowing the dental technician to demonstrate to the dentist or patient that only premium materials were used.

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. At the same time it also 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
- Practical 50 or 200 ml spray cans with special nozzles for uniform dosage

CEREC Stone BC modeling material – a highlight set in stone.

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

- Developed exclusively for use with CEREC Bluecam
- Optimal optical properties including brightness and contrast
- No powdering required
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

The CEREC Blocs Shade Guide contains 12 samples taken from its selection of real-life samples. It combines the simplicity of the VITA Classical system and the natural enamel-dentine-cervix layering of finely structured feldspar ceramic blocks. Long-term studies have demonstrated that 95-96% of the crowns are still intact after four years.[1]

The right choice

So far more than 20 million restorations have been created out of CEREC Blocs materials. Inlay/onlay restorations have demonstrated a survival rate of 90-95%.[2] After 10 years the clinical survival rate of inlays and onlays is between 90 and 95%.[3]

Multipatry

The complete digital fabrication of framework and veneering structure for crowns and bridges with the inLab software and Sintering programs deliver time savings of up to 75%.[4] Enhanced energy efficiency thanks to significantly shorter heating and cooling times (4 kWh instead of 10 kWh).

CAD/CAM materials for your laboratory

inCoris ZI – 2019–2020

Color shades not binding.

Individual zirconium oxide abutments.

The new HTC speed high-temperature furnace speeds up the processing of frameworks and crown coatings. The new high-speed sintering programs deliver time savings of up to 75 percent. This is the direct result of technologically enhanced heating elements, insulation materials and sintering trays. Thanks to its outstanding productivity, the inFire HTC speed is the ideal complement to the inLab system.

Time and cost benefits:

• Rapid 90-minute sintering of structure and veneering
  • Very high productivity with up to 5 additional sintering processes per working day due to a reduction of up to 75% sintering time
  • Complete fabrication of veneered multiple bridges within a single day
  • Three functions for overnight sintering
  • Enhanced energy efficiency thanks to significantly shorter heating and cooling times (48 kWh instead of 10 kWh)

Simple and versatile:

• Choice of high-speed and standard sintering programs
  • Program presets for Sirona, VITA Zahnfabrik and Ivoclar Vivadent ceramic materials
  • Two additional high-speed sintering programs for inCoris ZI speed and VITA In-Ceram YZ speed
  • 12 additional programs for user-defined sintering programs (prolonged and high-speed)
  • Four sintering programs with pre-venting and post-venting

Technical data inFire HTC speed

Dimensions (W x H x D) in mm 500 x 802 x 565 Furnace chamber Height 80 mm Mains frequency 50/60 Hz Interface RS 232 (Service) Power supply 200 V–240 V Weight 80 kg Options Input 3.600 VA Complete fabrication of veneered multilayer bridges within a single day 12 additional programs for user-defined sintering programs (prolonged and high-speed)

Overview of available implant systems

The Sirona inCoris ZI and inCoris AL materials are the ideal basis for the cost-effective fabrication of high precision ceramic restorations – from digital impressions to a model.

The inCoris ZI – zirconium oxide for high-strength bridge frameworks.
- High-performance ceramic material for highly designed long-span frameworks.
- High transparency (45%–50% of natural tooth) for esthetic requirements.
- Outstanding fracture strength and longevity.
- Excellent biocompatibility.
- Easy to machine thanks to high sintered density and small particle size.
- Available in various sizes and in five different shades.

Enhanced cost-effectiveness – inLab 3D Stack software.
- Several milling jobs can be placed within a single block saving time and material costs.
- Parial-used blocks can be deployed at a later date.
- Available in three block sizes and color FO.

inCoris TZI – translucent zirconium oxide.
- Highly translucent zirconium oxide for full crowns and bridges with up to five units.
- Ideal for critical situations, e.g. where there is limited space between the restoration and the antagonist.
- Resistant to chipping.
- Available in three block sizes and color FO.

Central Model Production.
- The laboratory sends the 3D model data received from the dentist to Sirona’s central model production. Valuable working time is saved.
- The laboratory then produces the 3D model data received from the dentist in-house with the inLab MC XL milling unit. Dental laboratories are now able to control the entire digital process from optical digital impressions to the dentists’ final impression.

Optical digital impressions with Sirona Connect are an innovative, precise alternative to conventional dental impressions. The intradental digital units are calculated to create a 3D model and sent directly via internet to a dental laboratory of choice. Two possibilities for manufacturing physical models after the dental laboratory additional flexibility for restorations: centrally produced or inhouse with a milling unit.

The control production model is fabricated from acrylic resin in a stereolithographic SLA process. They are then pressed in metal plates and sent in the lab within a few working days.

Control Model Production.
- The laboratory sends the 3D model data received from the dentist for Sirona’s central model production. Valuable working time is saved.
- Suitable working time was previously used for clearing the conventional impression, pouring materials, capping, setting this Jenkins, cutting the stone model and placement of model segments is thereby saved.
- The model is made out of all-acrylic synthetic resin using a SLA stereolithography production process.

inCoris ZI (e.g. VITA VM 9).
- Veneer using ceramic materials for use in combination with inCoris ZI.
- Partial crowns.
- Onlays.
- Inlays.
- In-house model milling.
- Step Bur 10, Cylinder Pointed Bur 10.
- Step Bur 12, Cylinder Pointed Bur 12.
- Step Bur 10, Cylinder Pointed Bur 10, Sirona finisher, 15 µm.
- Step Bur 5, Cylinder Pointed Bur 5.5.
- Al2O3 < 0,5 %
- Other oxide < 0.5 %
- TiO2 0.0–0.1% weight

Composition
- Cements (Self-adhesive or dual bonding)
- Use conventional (glass ionomer or zinc phosphate cements) or self or dual curing adhesives

Characterization
- Polishing
- Brushing: inLab milling with the inLab MC XL milling unit. Dental laboratories are now able to control the entire digital process from optical digital impressions to the dentists’ final impression.

Shading and glazing.
- To ensure particularly aesthetic results you can choose the inLab 3D Block with the inLab MC XL milling unit.
- With inLab milling and complete control over the model production process.

The individual model segment complete with pin holes are accurately milled in the inLab MC XL. Then the model is attached to the base plate.

From digital impressions to a model.
- Your benefits
- Integrated digital workflow from impression to model and restoration creation.
- Particularly well suited for the production of partial/pate models for single tooth restorations or smaller bridges in the posterior region.
- Maximum flexibility by processing digital impressions via in-house milling and complete control over the model production process.

The Sirona inCoris ZI 2 and inCoris AL 4L materials are the ideal basis for the cost-effective fabrication of high precision ceramic restorations – e.g. finely designed crowns, bridge frameworks and custom abutments. Excellent biocompatibility goes hand in hand with perfect aesthetics.

inCoris ZI color scheme
- CEREC Bloc restorations with thermal expansion coefficient 9.4 X 10–6/K
- 11.0 X 10–6/K
- 150 MPa
- 1200 MPa
- 6.8 GPa
- 5.57 GPa
- 65 x 25 x 22
- 55 x 19 x 15
- 40 x 19 x 15
- 30 x 19 x 15,5
- 20  x 19 x 15
- 15 x 19 x 15
- 10 x 19 x 15
- 6 x 19 x 15
- 3 x 19 x 15
- 1.5 x 19 x 15
- 0.5 x 19 x 15
- 0.1 x 19 x 15

Technical details
- Veneer using ceramic materials for use in combination with inCoris ZI.
- InLab milling and complete control over the model production process.

Polishing
- as per manufacturer.
- Glazing
- as per manufacturer.
- Characterization
- as per manufacturer.
- Shading and glazing
- as per manufacturer.
- Bonding
- as per manufacturer.

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- Outstanding fracture strength and longevity.
- Excellent biocompatibility.
- Easy to machine thanks to high sintered density and small particle size.
- Available in various sizes and in five different shades.

Enhanced cost-effectiveness – inLab 3D Stack software.
- Several milling jobs can be placed within a single block saving time and material costs.
- Partial-used blocks can be deployed at a later date.
- Available in three block sizes and color FO.

inCoris ZI – translucent zirconium oxide:
- Highly translucent zirconium oxide for full crowns and bridges with up to five units.
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inCoris ZI color scheme
- Best Quality,
- Label
- *Applicable only for inCoris ZI. inCoris TZI is only approved for full anatomical restorations.

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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 you face with confidence. **Enjoy every day. With Sirona.**