Everything for chairside CAD/CAM restorations
Groundbreaking innovations.
Proven solutions.
Natural esthetics.

Planmeca FIT dentists have been relying on Ivoclar Vivadent products for many years. There are many reasons for their trust. When it comes to innovative material concepts, clinical reliability is precisely what makes a product so attractive for dental professionals all over the world.

Based on science

Monobond Etch & Prime, Scientific Report, Vol. 01/2018
Light-curing. It’s good to know the facts, Special Feature, 07/2015
IPS e.max, Scientific Report, Vol. 03/2001-2017
IPS e.max, all-ceramic ... all you need, Ivoclar Vivadent Report, No. 17, June 2006
All-Ceramic Report. All-Ceramic Restorations – Materials Science and Development. Ivoclar Vivadent Report No. 16, February 2006
IPS e.max® and IPS Empress® are ceramic materials that are valued all over the world.

The brands are known for innovation, reliability, long-term clinical success and versatility. Patients can be confident that their restorations will stay in good condition for many years.

Scientific studies document the long-term reliability of these materials.

What is in it for me?

- Enhanced quality of your single-visit restorations due to coordinated products with high clinical evidence
- Suitable material and range of shades for each clinical situation
- Improved workflow efficiency due to innovative auxiliaries

What is in it for my patients?

- Time savings: no temporaries and no unpleasant impression-taking
- Reduced need for anaesthetics

IPS e.max® – the world’s most used all-ceramic system

96% survival rate

More than 10 years of clinical evidence

Over 120 million restorations

98% customer satisfaction

1 Based on sales figures
2 IPS e.max, Scientific Report, Vol. 03/2001-2017
3 IPS e.max CAD customer satisfaction survey in Germany and the USA, 2014
All you need for restorations in a single visit

The coordinated products out of one hand cover an extensive range of indications and offer all that is needed for treatment in a single visit. The benefits: durable, esthetic and accurate restorations paired with efficient and time-saving workflows.

IPS e.max® Shade Navigation App is the intelligent app which assists you in finding the most suitable Ivoclar Vivadent blocks. Just 5 clicks to find the right solution – for an optimum shade match.

CNS: The Cementation Navigation System, the popular multimedia application, offers dentists practical orientation and guidance in the selection of the best luting material for each case.
Average biaxial flexural strength, over a period of 10 years

**Typical mean value of biaxial flexural strength**

**R&D Ivoclar Vivadent, Schaan, Liechtenstein**

### SINGLE VISIT TREATMENT

**IPS e.max® CAD**
- Cross-linked PMMA material
  - For: Temporary crowns, bridges and hybrid abutment crowns
  - Strength: 135 MPa

**IPS e.max® ZirCAD**
- Lithium disilicate glass-ceramics (LS2)
  - For: Crowns, bridges, inlays, onlays, veneers, partial crowns and hybrid abutment crowns
  - Strength: 530 MPa

**IPS Empress® CAD**
- Zirconium oxide ceramics (ZrO2)
  - For: Crowns and bridges
  - Strength: MT Multi 850 MPa
  - LT 1,200 MPa

- Leucite glass-ceramics
  - For: Inlays, onlays, veneers and crowns
  - Strength: 185 MPa

- Composite
  - For: Inlays, onlays, veneers and crowns
  - Strength: 272 MPa

### CEMENTATION

### CARE

1 Average biaxial flexural strength, over a period of 10 years
2 Typical mean value of biaxial flexural strength

R&D Ivoclar Vivadent, Schaan, Liechtenstein
IPS e.max® CAD is the world’s best-selling glass-ceramic. It is suitable for the efficient fabrication of full-contour restorations and is known for its versatile application options, comprehensive range of indications and for its high strength of 530 MPa².

Both its esthetic properties and durability have been confirmed by everyday clinical practice.

Processing options
“Blue” restorations can either be:
• polished and then crystallized,
• glazed and crystallized in a single step,
• stained, glazed and crystallized in a single step.

Indications:
• Minimally invasive crowns (1 mm)³
• Crowns
• Three-unit bridges (up to the second premolar as the terminal abutment)
• Implant-supported hybrid abutment crowns
• Veneers, thin veneers (0.4 mm) and occlusal veneers
• Inlays, onlays, partial crowns

Overview of benefits
• Excellent esthetics and high strength of 530 MPa², efficiently created in the dental practice
• Full range of indications for your chairside CAD/CAM system
• Adhesive, self-adhesive and conventional cementation options, depending on the indication
• Clinical long-term success and scientifically documented results

¹ Based on sales figures
² Average biaxial flexural strength, over a period of 10 years, R&D Ivoclar Vivadent, Schaan, Liechtenstein
³ On the basis of long-term clinical evidence and the material’s high strength, the fabrication of crowns with a minimum thickness of 1 mm is allowed if an adhesive cementation technique is used.

Coordinated system
Monobond Etch & Prime®, Variolink® Esthetic
Having used IPS e.max® CAD for ten years in clinical applications, I’m fascinated by the material’s reliability, high esthetics and biocompatibility. The high number of bridges that we have successfully created at chairside is an indication of the new dimensions that this material opens up for patients and operators.

Oliver Schneider
Zwickau, Germany

Delivery form:

- 4 block sizes (112, C 14, C 16, B 32) and 2 abutment block sizes (A 14, A 16)
- 3 translucency levels and 2 Impulse blocks (HT – High Translucency, MT – Medium Translucency, LT – Low Translucency)
- Comprehensive range of shades: available in A–D and BL shades (the range of shades varies depending on the translucency level)

Polishing technique

**Polishing** of the “blue” restoration, followed by speed crystallization for 15 minutes.

Staining technique

**Glazing** of the “blue” restoration followed by speed crystallization for 15 minutes.
IPS e.max® ZirCAD empowers dental professionals to create and complete esthetic monolithic zirconium oxide restorations efficiently in the dental office using a speed sintering procedure.

Two groups of materials combined into one — this is what makes IPS e.max ZirCAD MT Multi special: the 5Y-TZP zirconium oxide is translucent and imparts high levels of translucency to the incisal area, while the more opaque 4Y-TZP zirconium oxide lends high strength to the dentin area.1

In addition, the material features a specially designed gradual progression of shade and translucency, consisting of 60% dentin, 20% transition and 20% incisal zone. This distribution reflects the natural progression from dentin to incisal and imparts natural esthetic characteristics to the restorations, even without characterization.

Overview of benefits

• Chairside zirconium oxide restorations allow practices to expand their portfolio of offerings
• Pleasing esthetics combined with high strength
• Tooth-preserving preparation
• Natural fluorescence with IPS e.max CAD Crystall./Glaze Fluo paste
• Versatile cementation options: conventional, adhesive or self-adhesive

1 Typical mean value of biaxial flexural strength: IPS e.max ZirCAD LT 1,200 MPa, MT Multi 850 MPa, R&D Ivoclar Vivadent, Schaan, Liechtenstein
2 Thickness of test specimen: 1 mm
3 no registered trademark of Ivoclar Vivadent AG

Coordinated system

Processing options
Once sintered, the restorations can either be:
• glazed and fired,
• stained (optional), glazed and fired,
• polished.

Indications:
• Crowns
• Three-unit bridges
For me, IPS e.max ZirCAD zirconium oxide for chairside restorations ideally complements IPS e.max CAD for posterior bridges.

Dr Ronny Watzke  
Ivoclar Vivadent, Schaan, Liechtenstein

Starting situation: metal-ceramic bridge, palatal view
IPS e.max® ZirCAD LT bridge

Dr Lukas Enggist, Ivoclar Vivadent, Schaan, Liechtenstein

Polishing technique
Staining technique

High-gloss polishing with OptraFine®
Glazing with fluorescent IPS e.max® CAD Crystal Glaze Paste Fluor

IPS e.max ZirCAD
MT Multi A2²

Raw material mixture

Incisal area
Dentin area

Natural progression of shade and translucency

Incisal zone
Transition zone
Dentin zone

• Two different raw powder components
• Genuine, natural progression of translucency from dentin to incisal

Competitive product
KATANA Zirconia STML, A2²

• One raw powder (5Y-TZP)
• No significant progression of translucency from dentin to incisal

Delivery form:

• 2 block sizes (C 17, B 45)
• 1 translucency level and Multi block (MT Multi – Medium Translucency, LT – Low Translucency)
• Available in shades BL, BL1, A1, A2, A3, B1, B2, C2, D2 (the range of shades varies depending on the translucency level)
IPS Empress® CAD is associated with more than 20 years of successful clinical performance. It closely reproduces the natural tooth structure due to its distinct chameleon effect and natural fluorescence. IPS Empress CAD is known for the highest levels of esthetics and can be easily polished to a high gloss. Grind–polish–done.

A special highlight is the innovative polychromatic IPS Empress CAD Multi block. This block is distinguished by a lifelike transition of shade and fluorescence from dentin to incisal.

**Processing options**
Once ground, restorations can either be:
- polished,
- stained (optional) – glazed.

**Indications:**
- Crowns
- Inlays, onlays
- Veneers

**Overview of benefits**
- Highly esthetic restorations, efficiently created
- Clinically proven ceramic material with a flexural strength of 185 MPa¹
- Optimum adjustment to the natural tooth structure due to the chameleon effect

¹ Average biaxial flexural strength, over a period of 10 years, R&D Ivoclar Vivadent, Schaan, Liechtenstein

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IPS Empress® CAD Multi reproduces the characteristics of the natural tooth. The level of chroma and fluorescence is elevated in the cervical portion and decreases towards the translucent incisal area.

**Coordinated system**
Monobond Etch & Prime®, Varilink® Esthetic
Dr Andreas Kurbad
Viersen, Germany

"I’m impressed with IPS Empress CAD Multi because of its natural light scattering. The transition of shade and fluorescence maximizes the esthetic effect without the application of characterizations. Its durability has been confirmed in everyday clinical practice."

Polishing technique

High-gloss polishing with OptraFine®

Delivery form:
- 4 block sizes (I10, I12, C14, C14L)
- 2 translucency levels and Multi block (HT – High Translucency, LT – Low Translucency)
- Wide range of shades: available in A–D and BL shades (the range of shades varies depending on the translucency level and block size)
Tetric® CAD is an esthetic composite block for the efficient fabrication of single-tooth restorations. Due to the pronounced chameleon effect, Tetric CAD restorations blend in well with the residual tooth structure.

Restorations are ground, polished and then seated using an adhesive cementation technique. This processing procedure is very efficient, leading to esthetic results quickly and easily.

**Processing options**

Once ground, restorations can be:
- polished
- characterized (optional).

**Indications:**
- Veneers
- Inlays
- Onlays (e.g. partial crowns, occlusal veneers)
- Crowns

**Overview of benefits**

- Lifelike integration into the oral environment due to the unique chameleon effect
- Excellent polishability and intraoral repairability
- Easy and efficient processing
- Stability even in restorations with limited layer thicknesses, thinly tapered margins are possible without chipping
- Reliable adhesive bond due to a coordinated system of cementation materials

**Coordinated system**

Adhese® Universal, Variolink® Esthetic
Tetric CAD is fast and easy to process. After the restoration has been ground, it can be polished to a high gloss in no time.

Dr Lukas Enggist, Ivoclar Vivadent, Schaan, Liechtenstein

Polishing technique

Fast high-gloss polishing in only one step (OptraPol®)

Delivery form:

- 2 block sizes (I 12, C 14)
- 2 translucency levels (HT – High Translucency, MT – Medium Translucency)
- Available in shades BL, A1, A2, A3, A3.5
Telio® CAD are cross-linked PMMA blocks for the efficient fabrication of long-term temporaries.

As a result of an optimized manufacturing process, the restorations feature a smooth surface that can be quickly and efficiently polished.

**Processing options**
Once milled, restorations are:
- polished
- characterized (optional).

**Indications:**
- Temporary crowns
- Temporary bridges with up to two connected pontics
- Implant-supported temporary hybrid abutment crowns

**Overview of benefits**
- High material homogeneity and process reliability reduce mixing errors and air entrapments compared with conventional methods
- Shade stability and lifelike fluorescence
- Excellent polishability
- Economical fabrication of temporaries

**Coordinated system**
Telio® CS Link

NEW
Telio® CAD LT A2 / B40L
Telio® CAD A 16
Telio® CAD B 40 L
Telio CAD is a material that combines esthetics with biocompatibility. The contours can be adjusted without difficulty at any time. It’s an excellent choice for long-term temporaries.

Delivery form:
- 3 block sizes (A16, B40L, B55)
- 1 translucency level (LT – Low Translucency)
- Available in shades BL3, A1, A2, A3, A3.5, B1, B3, C2, D2
Finalizing and firing

IPS e.max® CAD Crystall./Shades/Stains and Glaze

IPS e.max® CAD Crystall./Shades/Stains and Glaze is a universal range of stains and glazes designed for IPS e.max® CAD, IPS e.max® ZirCAD and IPS Empress® CAD.

The glaze is available in two versions – with or without fluorescent effect. Minor corrections (e.g. proximal contact areas) can be applied to IPS e.max® CAD and IPS e.max® ZirCAD restorations using IPS e.max® CAD Crystall./Add-On.

Indications:
• IPS e.max® CAD
• IPS e.max® ZirCAD
• IPS Empress® CAD

Overview of benefits
• Reduced inventory, reduced costs – a single range suitable for all the ceramic materials from Ivoclar Vivadent
• Familiar application and consistent high quality
• Glaze with and without fluorescent effect
• Possibility to apply corrections (e.g. proximal contacts) with Add-On

Coordinated system

Delivery form:
• 7 IPS e.max CAD Crystall./Shades, 3 g each
  (0, 1, 2, 3, 4, Incisal 1, Incisal 2)
• 7 IPS e.max CAD Crystall./Stains, 1 g each
  (white, cream, sunset, copper, olive, khaki, mahogany)
• 1 IPS e.max CAD Crystall./Glaze Paste, 3 g
• 1 IPS e.max CAD Crystall./Glaze Paste Fluo, 3 g
• 1 IPS e.max CAD Crystall./Glaze Spray, 270 ml
• 2 IPS e.max CAD Crystall./Add-On, 5 g each
  (Incisal, Dentin)
• 1 IPS e.max CAD Crystall./Glaze Liquid, 15 ml
• 1 IPS e.max CAD Crystall./Add-On Liquid, 15 ml
  (allround)
Programat® – for optimum firing results

Clinicians and dental technicians all over the world simply love the high quality standard, long service life, homogeneous firing results and straightforward operation, together with the many other innovative features. It is not without reason that the Programat range is among the best-selling ceramic furnaces*. The brand has gained a track record of success spanning more than 40 years.

*Based on sales figures

Overview of benefits

- 40-year success story underpins the high quality standard
- Precision firing ensures homogeneous results
- Pre-set Ivoclar Vivadent programs enhance process reliability
- “Power Saving Technology” reduces energy consumption in the stand-by mode

All furnaces are equipped with a power-saving key. In the stand-by mode, the furnaces uses 40% less energy.
The IPS e.max® CAD and Telio® CAD ranges comprise blocks that come with a pre-fabricated interface for the direct cementation to the Viteo® Base. The adhesive titanium base is coordinated with a range of implant systems. This allows implant-supported hybrid abutment crowns to be created at chairside using clinically proven products. Cementation is achieved with the self-curing Multilink Hybrid Abutment luting composite.

Overview of benefits

**Viteo® Base**
- The original base for IPS e.max and Telio CAD
- Conditioned base to ensure a durable bond
- Ideal base for Ivoclar Vivadent Abutment Solutions

**Telio® CAD**
- Straightforward design of the emergence profile
- Visualization of the permanent restoration

Delivery form:
- Viteo Base
- Viteo Base (SD, MD)
- Viteo Screw
- Viteo Screw Channel Pin

Coordinated system

**for IPS e.max® CAD**
- IPS Ceramic Etching Gel
- Monobond® Plus
- Multilink® Hybrid Abutment

**for Telio® CAD**
- SR Connect
- Multilink® Hybrid Abutment
Care

Implant restorations require professional care during the different phases of an implant treatment and the required lifelong aftercare.

Implant Care is a coordinated system of products which assist the practice team and its patients in assuring the long-term quality of valuable implant restorations.

IPS e.max® CAD
- Exceptional and long-lasting esthetics due to tooth-coloured hybrid abutment crowns
- Hybrid abutment crown (2-in-1) offers functionality and efficiency
- Excellent biocompatibility with oral soft tissues

Delivery form:
Telio® CAD
- 1 block size (A 16) with pre-fabricated interface in size “SD” and “MD”
- 1 translucency level (LT – Low Translucency)
- Available in shades BL3, A1, A2, A3, A3.5, B1, B3, C2, D2

Multilink® Hybrid Abutment
- 9-g automix syringe, 15 mixing tips each
- 1 shade: HO 0

IPS e.max® CAD
- 2 block sizes (A 14, A 16) with pre-fabricated interface in sizes “SD” and “MD”
- 1 translucency level (LT – Low Translucency)
- Available in shades BL2, A1, A2, A3, A3.5, B1, B2, C1, C2, D2

Multilink® Hybrid Abutment
- Permanent cementation thanks to high bond strength values
- Optimum esthetics due to high opacity
- Easy handling due to convenient Automix syringe
Variolink® Esthetic

The esthetic luting composite

Variolink® Esthetic is an esthetic light- and dual-curing luting composite for the permanent cementation of demanding ceramic and composite restorations. The cement is based on the esthetic luting composites Variolink II and Variolink Veneer, which have proven their worth in clinical use for many years.

Indications:
Veneers, inlays, onlays, crowns and bridges made from:
- IPS e.max® CAD
- IPS Empress® CAD
- Tetric® CAD

Overview of benefits

- Balanced and straightforward Effect shade system
- Excellent shade stability due to amine-free formulation
- Easy, controlled clean-up

Delivery form:

- **Variolink® Esthetic LC** (only light-curing)
  - 2-g syringe, 5 application tips each
  - 5 shades: Light+, Light, Neutral, Warm, Warm+

- **Variolink® Esthetic DC** (dual-curing)
  - 5-g automix syringe, 10 mixing tips each
  - 5 shades: Light+, Light, Neutral, Warm, Warm+

- **Variolink® Esthetic Try-In Paste**
  - 1.7-g syringe, 5 application tips each
  - 5 shades: Light+, Light, Neutral, Warm, Warm+

- **Monobond Etch & Prime**
  - 5-g bottle
SpeedCEM® Plus

The self-adhesive resin cement

SpeedCEM® Plus is a self-adhesive, self-curing resin cement with optional light-curing. It offers an ideal combination of performance and user friendliness. Its formulation has been optimized to make it particularly suitable for use in conjunction with restorations made of IPS e.max ZirCAD, metal-ceramics and for the cementation of restorations on implant abutments.

Indications:
Crowns and bridges made from:
- IPS e.max® ZirCAD
- IPS e.max® CAD
- Metal and metal-ceramics

Overview of benefits

- Excellent self-curing performance, ideal for IPS e.max ZirCAD and metal-ceramics
- User friendly handling and easy clean-up
- Efficient process with just one component

Delivery form:
SpeedCEM Plus
- 9-g automix syringe, 15 mixing tips each and 5 root canal tips
- 3 shades: yellow, opaque, transparent

Ivoclean
- 5-g bottle
A system
designed for clinical success

Many dentists rely on the products of Ivoclar Vivadent, and with good reason.

It is not only the familiar blocks but also the range of innovative and proven auxiliaries that make our products so attractive for CAD/CAM dentists all over the world.

Everything out of one hand for restorations in a single visit.

IvoSmile™ App
visualizes possible dental makeovers quickly and without strings attached.
The iPad™ turns into a virtual mirror.

² no registered trademark of Ivoclar Vivadent AG

Ⅰ IvoSmile has been available in some markets since November 2018.
OptraGate®
retracts the lips and cheeks easily and gently over a large area.

IPS e.max® Shade Navigation App
facilitates the selection of appropriate blocks, ingots and discs. The app takes all the essential factors (tooth shade, indication, shade of the preparation, layer thickness, material) affecting the overall shade design of the restoration into account to recommend a suitable material.

The IPS Natural Die Material shade guide assists in determining the shade of the prepared tooth.

Optra polishers
allow quick polishing of composite (OptraPol®) and ceramic restorations (OptraFine®).

Adhese® Universal
is designed for both direct and indirect bonding procedures and features compatibility with all etching techniques. Thanks to the VivaPen® delivery form, the material can be directly applied in the patient’s mouth.

Bluephase® Style 20i
offers a light intensity of 2,000 mW/cm² ± 10 % and features polywave LED technology. The ergonomic design and shortened light guide make this curing light especially delightful to work with. All tooth surfaces can be accessed without extreme opening of the mouth.

Cervitec® Plus
is a protective varnish providing intensive protection to help maintain the high quality of restorations. Cervitec Plus is applied by the dental professional directly to susceptible areas, for instance along the margins of crowns and bridges.
## Strong combinations

<table>
<thead>
<tr>
<th></th>
<th>Variolink® Esthetic</th>
<th>SpeedCEM® Plus</th>
<th>Tello® CS Link</th>
<th>Multilink® Hybrid Abutment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curing Mode</td>
<td>light-curing</td>
<td>dual-curing</td>
<td>self-curing</td>
<td>self-curing</td>
</tr>
<tr>
<td>Conditioning</td>
<td>adhesives</td>
<td>self-adhesive</td>
<td>temporary</td>
<td>adhesives</td>
</tr>
</tbody>
</table>

- IPS e.max® CAD
  - Lithium disilicate glass-ceramics (LS2)
  - Occlusal Veneers
  - Thin Veneers, Veneers
  - Inlays, Onlays, Partial Crowns
  - Minimally Invasive Crowns (1 mm)
  - Crowns
  - Three-Unit Bridges
  - Hybrid Abutment Crowns

- IPS e.max® ZirCAD
  - Zirconium oxide ceramics (ZrO2)
  - Crowns
  - Bridges

- IPS Empress® CAD
  - Leucite glass-ceramics
  - Inlays, Onlays, Partial Crowns
  - Veneers
  - Crowns

- Tetric® CAD
  - Composites
  - Occlusal Veneers
  - Veneers
  - Inlays, Onlays, Partial Crowns
  - Crowns

- Tello® CAD
  - Cross-linked PMMA material
  - Temporary Crowns
  - Temporary Bridges (max. 2 connected bridge pontics)
  - Temporary Hybrid Abutment Crowns

- IPS e.max® Shade Navigation App
- CNS: The Cementation Navigation System

### Recommendations
- ✔ Recommended product combinations
- ✗ Not recommended
- * Conditioning with Monobond Etch & Prime®
- ** Conditioning with SR Connect
- *** Conditioning with Adhese® Universal

Please take note of the corresponding instructions for use.