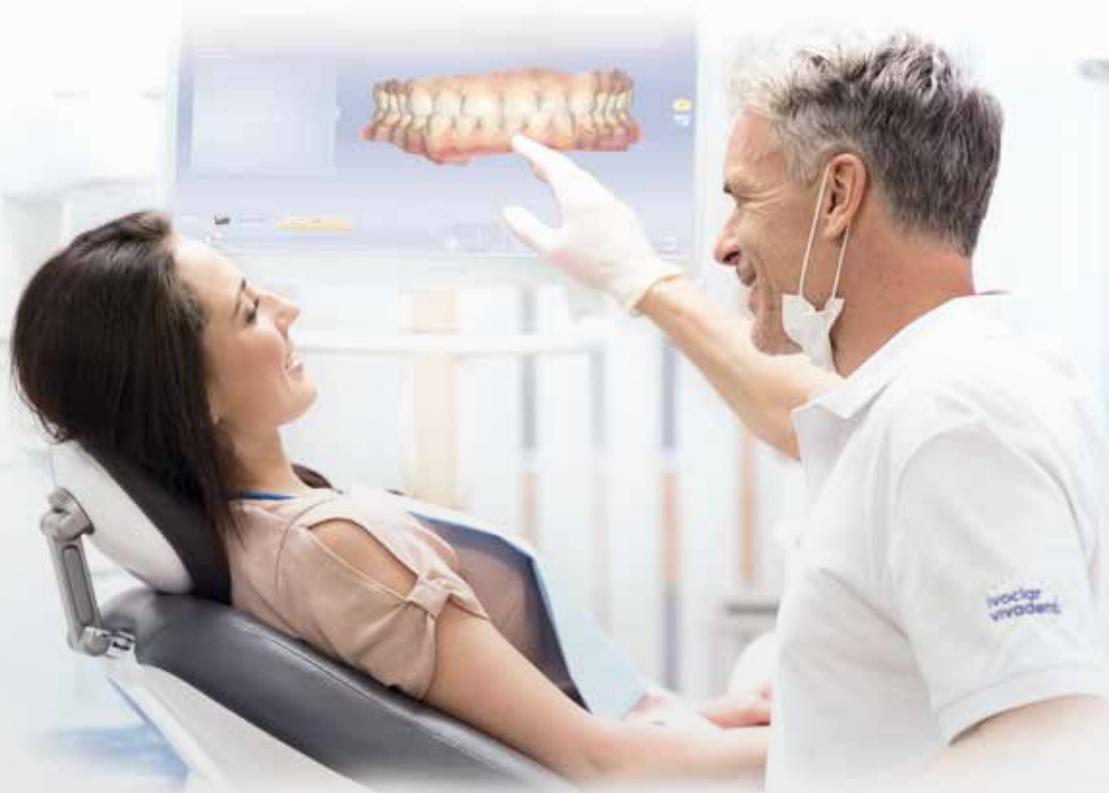




Everything for
chairside
CAD/CAM
restorations



Groundbreaking **innovations**. **Proven** solutions. **Natural** esthetics.



CEREC 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

Variolink Esthetic. The esthetic luting composite. Ivoclar Vivadent Report No. 22, July 2016
Multilink Automix, Scientific Report, Vol. 02/2016
Adhese Universal, Scientific Report, Vol. 01/2016
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 used¹ all-ceramic system

96%² survival rate

More than 10 years of clinical evidence

Over 100 million restorations¹

98%³ 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.

Telio[®] CAD

NEW

Tetric[®] CAD

POLISHING



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.

PREPARATION



RESTORATION AND COMPLETION



IPS e.max[®] CAD

Lithium disilicate glass-ceramics (LS₂)
For: Crowns, bridges, inlays, onlays, veneers, partial crowns and implant-supported hybrid restorations
Strength: 530 MPa¹

FIRING

SINGLE-VISIT TREATMENT

IPS e.max[®] ZirCAD

Zirconium oxide ceramics (ZrO₂)
For: Crowns and bridges
Strength: 1,200 MPa²

Cross-linked PMMA material
For: Temporary crowns, bridges and hybrid abutment crowns
Strength: 135 MPa³

Composite
For: Inlays, onlays, veneers and crowns
Strength: 272 MPa³

Leucite glass-ceramics
For: Inlays, onlays, veneers and crowns
Strength: 185 MPa¹

IPS Empress[®] CAD

CEMENTATION



CARE



¹ Average biaxial flexural strength, over a period of 10 years
² Typical mean value of biaxial flexural strength of IPS e.max ZirCAD LT
³ Typical mean value of biaxial flexural strength

IPS e.max[®] CAD

Lithium disilicate glass-ceramics (LS₂)

IPS e.max[®] CAD is the world's best-selling glass-ceramic¹. 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 restorations (hybrid abutments, 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
- Minimally invasive crown preparation; adhesively cemented
- 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





Oliver Schneider
Zwickau, Germany



Preoperative situation
in 2008



Final situation in 2009



IPS e.max® CAD crowns and bridges:
7 years *in situ*

“ 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. ”

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.



A 14



A 16

Delivery form:

- 6 block sizes (I 12, C 14, C 16, B 32) and 2 abutment block sizes (A 14, A 16)
- 4 translucency levels and 2 Impulse blocks (HT – High Translucency, MT – Medium Translucency, LT – Low Translucency, MO – Medium Opacity)
- Comprehensive range of shades: available in A–D and BL shades (the range of shades varies depending on the translucency level)

IPS e.max® ZirCAD

Zirconium oxide ceramics (ZrO₂)

IPS e.max® ZirCAD involves a quick sintering process, which allows monolithic and esthetically pleasing zirconium oxide restorations to be created directly in the dental practice using an efficient procedure.

IPS e.max ZirCAD is known for its high flexural strength (1,200 MPa*) and fracture toughness. It allows the fabrication of restorations with considerably lower wall thicknesses (posterior crowns: minimum 0.6; anterior crowns: minimum 0.4 mm). Preparations preserve tooth structure and restorations can be cemented conventionally.

Glazing is achieved with IPS e.max CAD Crystall./Glaze, which is available in two versions, one with fluorescent effect and one without.

Processing options

Once sintered, the restorations can either be:

- glazed and fired,
- stained (optional), glazed and fired,
- polished.

Indications:

- Crowns
- Three-unit bridges



Overview of benefits

- Chairside zirconium oxide restorations allow practices to expand their portfolio of offerings
- Pleasing esthetics combined with high strength
- Tooth-preserving preparation and conventional cementation
- No risk of chipping
- Biocompatibility

* Typical mean value of biaxial flexural strength, IPS e.max ZirCAD LT; R&D Ivoclar Vivadent, Schaan, Liechtenstein

Coordinated system



Ivoclean®, SpeedCEM® Plus





Dr Ronny Watzke
Ivoclar Vivadent, Schaan, Liechtenstein

“ For me, IPS e.max ZirCAD zirconium oxide for chair-side restorations ideally complements IPS e.max CAD for posterior bridges. ”



Starting situation: metal-ceramic bridge, palatal view



IPS e.max® ZirCAD LT bridge

Dr Lukas Enggist, Ivoclar Vivadent, Schaan, Liechtenstein

Polishing technique



High-gloss polishing with OptraFine®

Staining Technique



Glazing with fluorescent IPS e.max® CAD Crystall./Glaze Paste Fluo



Delivery form:

- 2 block sizes (C 17, B 45)
- 1 translucency level (LT – Low Translucency)
- Available in shades BL, A1, A2, A3, B1, B2, C2, D2

IPS Empress® CAD

Leucite glass-ceramics

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



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.

Overview of benefits

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

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

Coordinated system



Monobond Etch & Prime®, Variolink® Esthetic



18

110

112



Dr Andreas Kurbad
Viersen, Germany



Preoperative situation
in 2007



Final situation in 2007



Recall in 2017

“ 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 application of characterizations. Its durability has been confirmed in everyday clinical practice. ”

Polishing technique



High-gloss polishing with OptraFine®



C14



C14 L

Delivery form:

- 5 block sizes (I 8, I 10, I 12, C 14, C 14 L)
- 2 translucency levels and Multi block (HT – High Translucency, LT – Low Translucency)
- Wide range of shades: available in A–D, Chromascop and BL shades (the range of shades varies depending on the translucency level and block size)

Tetric® CAD

Composites

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



Benefits at a glance

- 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



I12

C14



Dr Lukas Enggist,
Ivoclar Vivadent, Schaan, Liechtenstein

“ *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.* ”



Preoperative situation



Final situation

Dr Lukas Enggist, Ivoclar Vivadent, Schaan, Liechtenstein

Polishing



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



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
(the range of shades varies depending on the translucency level)

Telio® CAD

Cross-linked PMMA material

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



A 16

B 40 L



Dr Gunpei Koike
Yokosuka, Japan

“ *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.* ”



Preoperative situation

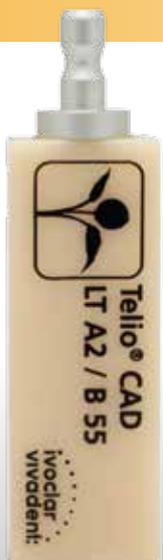


Final situation

Polishing technique



Quick high-gloss polishing in only one step (OpraPol®)



B 55

Delivery form:

- 3 block sizes (A 16, B 40 L, B 55)
- 1 translucency level (LT - Low Translucency)
- Available in the shades BL3, A1, A2, A3, A3.5, B1, B3, C2, D2 (the range of shades varies depending on the translucency level)

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



IPS e.max® CAD, IPS Empress® CAD.
IPS e.max® ZirCAD

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



All furnaces are equipped with a power-saving key. In the stand-by mode, the furnaces uses 40 % less energy.

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



Programat® CS2

Glazing and crystallization furnace with colour touch screen



Programat® CS3

Glazing and crystallization furnace with colour touch screen and Digital Shade Assistant



Programat® CS4

Glazing, crystallization and sintering furnace

**Speed
Program**

15 min.

IPS e.max® CAD

15 min.

IPS e.max® CAD

17 min.

IPS e.max® CAD

37 min.

IPS e.max® ZirCAD

Implant prosthetics

From temporary to permanent restoration

The IPS e.max® CAD and Telio® CAD ranges comprise blocks that come with a pre-fabricated interface for the direct cementation to a titanium base, e.g. Dentsply Sirona Ti Base. This allows implant-supported hybrid

abutments and hybrid abutment crowns to be created at chairside using clinically proven products. Cementation is achieved with the self-curing Multilink® Hybrid Abutment luting composite.

Temporization

Telio® CAD A 16



Permanent restoration

IPS e.max® CAD
A 14, A 16



Cementation

Multilink® Hybrid Abutment



Hybrid abutment crown



Hybrid abutment crown



Hybrid abutment crown



Overview of benefits

Telio® CAD

- Straightforward design of the emergence profile
- Visualization of the permanent restoration

IPS e.max® CAD

- Exceptional and long-lasting esthetics due to tooth-coloured hybrid abutments
- Hybrid abutment crown (2-in-1) offers functionality and efficiency
- Excellent biocompatibility with oral soft tissues

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.



Multilink® Hybrid Abutment

- Permanent cementation thanks to high bond strength values
- Optimum esthetics due to two available opacity levels
- Easy handling due to convenient Automix syringe

Delivery form:

Telio® CAD

- 1 block size (A 16) with pre-fabricated interface in size "S" or "L" (Dentsply Sirona Ti Base)
- 1 translucency level (LT – Low Translucency)
- Available in shades BL3, A1, A2, A3, A3.5, B1

Multilink® Hybrid Abutment

- 9-g automix syringe, 15 mixing tips each
- 1 shade: HO 0, MO 0

IPS e.max® CAD

- 2 block sizes (A 14, A 16) with pre-fabricated interface in sizes "S" and "L" (Dentsply Sirona Ti Base)
- 2 translucency levels (LT – Low Translucency and MO – Medium Opacity)
- Block sizes LT: A 14 and A 16, available in shades BL2, A1, A2, A3, A3.5, B1, B2, C1, C2, D2
- Block sizes MO: A 14 blocks, available in shades 0, 1, 2, 3, 4

Variolink® Esthetic

Ideal for
IPS e.max®
CAD/Press

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.

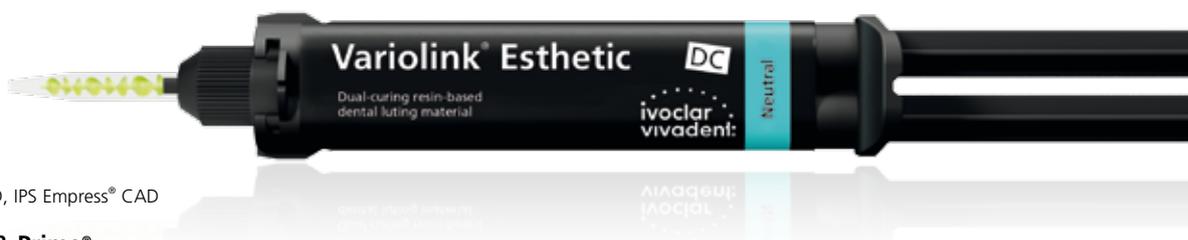
Indications:

Veneers, inlays, onlays, crowns and bridges made from:

- IPS e.max® CAD
- IPS Empress® CAD
- Tetric® CAD



Ideal for IPS e.max® CAD, IPS Empress® CAD in combination with **Monobond Etch & Prime®**, the self-etching ceramic primer.



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 DC (dual-curing)

- 9-g automix syringe, 15 mixing tips each
- 3 shades: Light, Neutral, 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

Ideal for
IPS e.max®
ZirCAD

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



Ideal for IPS e.max® ZirCAD in combination with **Ivoclean®**, the universal cleaning paste.



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.



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.



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 $2,000 \text{ mW/cm}^2 \pm 10 \%$ 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

	Variolink® Esthetic		SpeedCEM® Plus	Telio® CS Link	Multilink® Hybrid Abutment
	light-curing	dual-curing	self-curing with light-curing option	dual-curing (light- and self-cure)	self-curing
Curing					
Mode	adhesive		self-adhesive	temporary	adhesive
	Adhese® Universal or Syntac®				
Conditioning	Monobond Etch & Prime®				Monobond® Plus and IPS Ceramic Etching Gel

Extraoral cementation

IPS e.max® CAD Lithium disilicate glass-ceramics (LS ₂)					
Occlusal Veneers	✓	✓	—	—	—
Thin Veneers, Veneers	✓	✓	—	—	—
Inlays, Onlays, Partial Crowns	✓	✓	—	—	—
Minimally Invasive Crowns (1 mm)	—	✓	—	—	—
Crowns	—	✓	✓*	—	—
Three-Unit Bridges	—	✓	✓*	—	—
Hybrid Abutments	—	—	—	—	✓
Hybrid Abutment Crowns	—	—	—	—	✓
IPS e.max® ZirCAD Zirconium oxide ceramics (ZrO ₂)					
Crowns	—	—	✓	—	—
Bridges	—	—	✓	—	—
IPS Empress® CAD Leucite glass-ceramics					
Inlays, Onlays, Partial Crowns	✓	✓	—	—	—
Veneers	✓	✓	—	—	—
Crowns	—	✓	—	—	—
NEW Tetric® CAD Composite					
Veneers, Inlays, Onlays (e.g. Partial Crowns, Occlusal Veneers)	✓***	✓***	—	—	—
Crowns	—	✓***	—	—	—
Telio® CAD Cross-linked PMMA material					
Temporary Crowns	—	—	—	✓	—
Temporary Bridges (max. 2 connected bridge pontics)	—	—	—	✓	—
Temporary Hybrid Abutment Crowns	—	—	—	—	✓**

✓ 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.



IPS e.max® Shade Navigation App



CNS: The Cementation Navigation System
www.cementation-navigation.com

Ivoclar Vivadent AG
Bendererstr. 2
9494 Schaan
Liechtenstein
Tel. +423 235 35 35
Fax +423 235 33 60
www.ivoclarvivadent.com

Descriptions and data constitute no warranty of attributes.
Printed in Germany
© Ivoclar Vivadent AG, Schaan/Liechtenstein
689674/2018-03/EN

ivoclar
vivadent
passion vision innovation