

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 used all-ceramic system

96% survival rate²

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.



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

Strength: 135 MPa²

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



SINGLE-VISIT TREATMENT

IPS e.max® ZirCAD

Composite For: Inlays, onlays, veneers and crowns Strength: 272 MPa²

Zirconium oxide ceramics (ZrO₂) For: Crowns and bridges Strength: MT Multi 850 MPa² LT 1,200 MPa²

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

IPS Empress® CAD







- ¹ Average biaxial flexural strength, over a period of 10 years ² 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-selling¹ 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 restorations (hybrid abutments, hybrid abutment crowns)
- Veneers, thin veneers (0.4 mm) and occlusal veneers
- Inlays, onlays, partial crowns





B32

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

- 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





¹ Based on sales figures



Oliver Schneider Zwickau, Germany



in 2008



Final situation in 2009



IPS e.max® CAD crowns and bridges: Recall after 7 years

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 16 A 14

- 4 block sizes (112, C14, C16, B32) and 2 abutment block sizes (A14, A16)
- 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 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.

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.

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
- 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







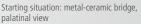
Ivoclean®, SpeedCEM® Plus



Dr Ronny Watzke Ivoclar Vivadent, Schaan, Liechtenstein

For me, IPS e.max ZirCAD zirconium oxide for chairside restorations ideally complements IPS e.max CAD for posterior bridges.







IPS e.max® ZirCAD LT bridge

Dr Lukas Enggist, Ivoclar Vivadent, Schaan, Liechtenstein



Polishing technique

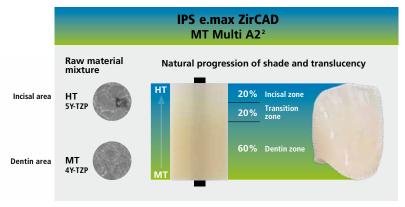


High-gloss polishing with OptraFine®

Staining Technique



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



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

- Competitive product KATANA Zirconia STML, A2^{2,3}
- One raw powder (5Y-TZP)
- No significant progression of translucency from dentin to incisal



- 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

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

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

Coordinated system





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



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

Polishing technique



High-gloss polishing with OptraFine®





- 4 block sizes (I 10, I 12, C 14, C 14L)
- 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

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







Dr Lukas Enggist, Ivoclar Vivadent, Schaan, Liechtenstein







Preoperative situation

Final situation

Dr Lukas Enggist, Ivoclar Vivadent, Schaan, Liechtenstein

Polishing technique



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



- 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

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







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 (OptraPol®)



- 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



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

- 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

17 min

27 min

IPS e.max® CAD

IPS e.max® CAD

IPS e.max® ZirCAD LT

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.





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



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 high opacity
- 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, 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 (A14, A16) 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: A14 and A16, available in shades
 BL2, A1, A2, A3, A3.5, B1, B2, C1, C2, D2
- Block sizes MO: A14 blocks, available in shades
 0, 1, 2, 3, 4

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





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

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.



OptraGate®

retracts the lips and cheeks easily and gently over a large area.



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/cm 2 ± 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.

Busyland Digit 20

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

Curing

Mode

Conditioning

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	
adhesive		self-adhesive	temporary	adhesive	
Adhese® Universal or Syntac®					
Monobond Etch & Prime®				Monobond® Plus and IPS Ceramic Etching Gel	

			l		Etterning der
IPS e.max® CAD Lithium disilicate glass-ceramics (LS ₂)					
Occlusal Veneers	V	~	_	_	_
Thin Veneers, Veneers	~	~	_	_	_
Inlays, Onlays, Partial Crowns	V	~	_	_	_
Minimally Invasive Crowns (1 mm)	_	~	_	_	_
Crowns	_	~	√ *	_	_
Three-Unit Bridges	_	~	√ *	_	_
Hybrid Abutments	_	_	_	_	V
Hybrid Abutment Crowns	_	_	_	_	V
IPS e.max® ZirCAD Zirconium oxide ceramics (ZrO ₂)					
Crowns	_	_	~	_	_
Bridges	_	_	V	_	_
IPS Empress® CAD Leucite glass-ceramics					
Inlays, Onlays, Partial Crowns	V	~	_	_	_
Veneers	V	~	_	_	_
Crowns	_	~	_	_	_
Tetric® CAD Composites					
Occlusal Veneers	/ ***	V***	_	_	_
Veneers	/ ***	V***	_	_	_
Inlays, Onlays, Partial Crowns	/ ***	V***	_	_	_
Crowns	_	V***	_	_	_
Telio® CAD Cross-linked PMMA material					
Temporary Crowns	_	_	_	~	_
Temporary Bridges (max. 2 connected bridge pontics)	_	_	_	~	_

 \checkmark Recommended product combinations

Temporary Hybrid Abutment Crowns

- Not recommended

NEW

NEW

- * 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

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