

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.

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.

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

Light-curing. It's good to know the facts, Special Feature, 07/2015

IPS e.max. Scientific Report. Vol. 02 / 2001-2013

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



all ceramic
all you need

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**

**96.6%²
survival rate**

**More than
10 years
clinical evidence**

**Over 100
million
restorations¹**

**98%³
customer
satisfaction**

¹ Based on sales figures

² IPS e.max, Scientific Report, Vol. 02/2001-2013

³ IPS e.max CAD customer satisfaction survey in Germany and the USA, 2014

All you need for restorations in a single visit



Cementation



Conditioning



Crystallization

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



Polishing



Grinding



Scanning



Aftercare

Cementation

Cross-linked PMMA material
For: Temporary crowns, bridges and hybrid abutment crowns
Strength: 130 MPa³



Telio® CAD

Polishing



Milling

Scanning



NEW



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 offers practical orientation and guidance in questions concerning cementation.



Aftercare



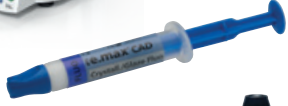
Scanning



Milling



Sintering



Glazing



Cleaning

NEW

IPS e.max® ZirCAD

Zirconium oxide ceramics (ZrO₂)

For: Crowns and bridges

Strength: 1,200 MPa²



Cementation



Aftercare



Scanning

IPS Empress® CAD

Leucite glass-ceramics

For: Inlays, onlays, veneers and crowns

Strength: 185 MPa¹



Grinding



Polishing



Conditioning



Cementation

Aftercare



¹ Average biaxial flexural strength, over a period of 10 years

² Average biaxial flexural strength of IPS e.max ZirCAD LT

³ Average biaxial flexural strength

**CAD/CAM
chairside**

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:

NEW

- 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





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.



Delivery form:

- 6 block sizes (I 12, C 14, C 16, B 32, B 40, B 40 L*) 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)

*for the IPS e.max CAD-on technique on zirconium oxide frameworks

NEW

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. This makes this popular restorative material also suitable for chairside restorations.

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

*Average biaxial flexural strength, R&D Ivoclar Vivadent, Schaan, Liechtenstein

Coordinated system



OptraGate®

Programat® CS4



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. ”

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*

*coming soon

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 grinded, 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





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®



C 14



C 14 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 may vary depending on the translucency level and block size)

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

Indications:

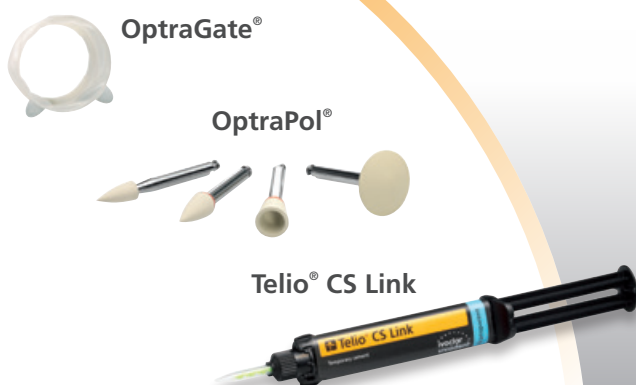
- Temporary crowns
- Temporary bridges with up to two connected pontics
- Implant-supported temporary hybrid abutment crowns



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





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 shades A1, A2, A3, A3.5, B1, BL3

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.

NEW

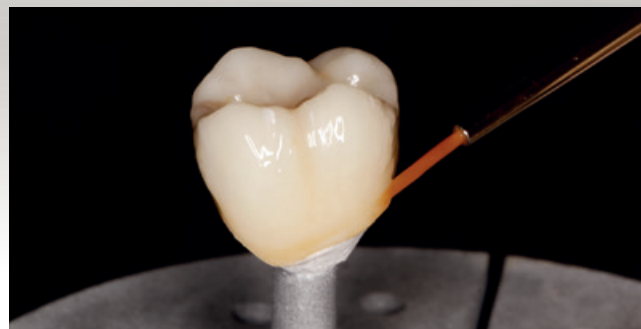
The glaze is now available in two versions - with or without fluorescent effect.

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



Applying Shades and Stains to IPS e.max® ZirCAD

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 e.max® ZirCAD



IPS Empress® CAD

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
- 3 IPS e.max CAD Crystall./Add-On, 5 g each (Incisal, Dentin, Connect*)
- 1 IPS e.max CAD Crystall./Glaze Liquid, 15 ml
- 2 IPS e.max CAD Crystall./Add-On Liquid, 15 ml each (allround, longlife*)

NEW

*for the IPS e.max CAD-on technique on zirconium oxide frameworks

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



NEW

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

OptraGate®



Multilink®
Hybrid Abutment



Monobond® Plus



SR Connect

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 A1, A2, A3, A3.5, B1, BL3

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 A1, A2, A3, A3.5, B1, B2, C1, C2, D2, BL2
- Block sizes MO: A 14 blocks, available in shades 0, 1, 2, 3, 4

Variolink® Esthetic

The esthetic luting composite for lithium disilicate glass-ceramics

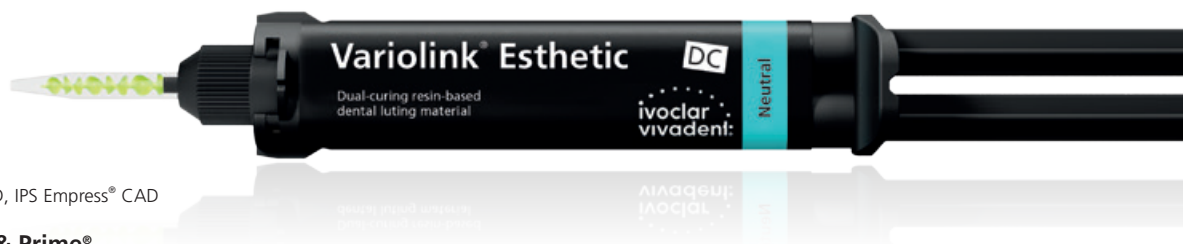
Variolink® Esthetic is an esthetic light- and dual-curing luting composite for the permanent cementation of demanding ceramic and composite restorations. The cement is based on the esthetic luting composites Variolink II and Variolink Veneer, which have proven their worth in clinical use for many years.

Indications:

- IPS e.max CAD
- IPS Empress CAD
- Composite restorations



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 for zirconium oxide

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:

- 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

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)					
NEW	Occlusal Veneers	✓	✓	—	—
	Thin Veneers, Veneers	✓	✓	—	—
NEW	Inlays, Onlays, Partial Crowns	✓	✓	—	—
	Minimally Invasive Crowns (1 mm)	—	✓	—	—
	Crowns	—	✓	✓*	—
	3-gliedrige Brücke	—	✓	✓*	—
	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	—	✓	—	—
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



Please take note of the corresponding instructions for use.

NEW



IPS e.max® Shade Navigation App



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

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