

IPS<sup>®</sup> e.max<sup>®</sup>

INFORMATION FOR THE DENTIST

IPS e.max<sup>®</sup>

**all** ceramic  
**all** you need



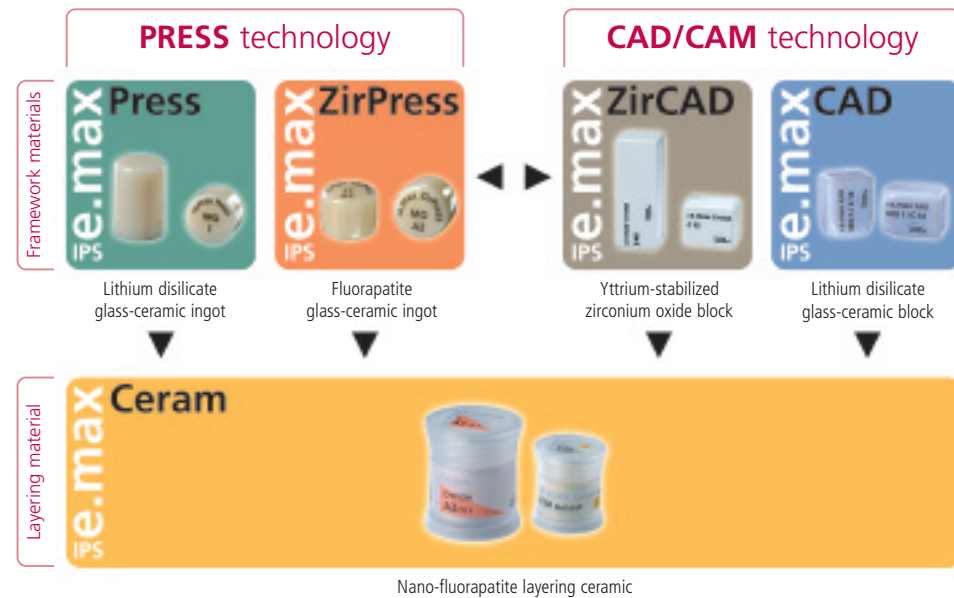
ivoclar<sup>®</sup>  
vivadent<sup>®</sup>  
passion vision innovation

## All you need for all-ceramics – PRESS and CAD/CAM techniques ...

Designed with simplicity and versatility in mind, **IPS e.max** comprises **highly aesthetic** and high-strength materials for both the **PRESS** and the **CAD/CAM technique**.

The decision to use **IPS e.max** is a decision to take advantage of the unlimited possibilities of all-ceramics.

Depending on the case at hand, you can provide your patients with individual restorations that exhibit **impeccable aesthetics** and the **required high mechanical stability**.



... for the following indications:



Indication	IPS e.max Press	IPS e.max ZirPress	IPS e.max ZirCAD	IPS e.max CAD	IPS e.max Ceram	Cementation	
						adhesive	self-adhesive / conventional
Veneers	•	•		•	•	Variolink® II, Variolink® Veneer	—
Partial crowns	•	• <sup>1)</sup>	•	•	• <sup>2)</sup>	Variolink® II, Multilink® Automix	—
Anterior and posterior crowns	•	• <sup>1)</sup>	•	•	• <sup>2)</sup>	Variolink® II, Multilink® Automix	Vivaglass® CEM
Three-unit anterior bridges	•	• <sup>1)</sup>	•		• <sup>2)</sup>	Variolink® II, Multilink® Automix	Vivaglass® CEM
Three-unit premolar bridges	•	• <sup>1)</sup>	•		• <sup>2)</sup>	Variolink® II, Multilink® Automix	Vivaglass® CEM
Three-unit posterior bridges		• <sup>1)</sup>	•		• <sup>2)</sup>	Multilink® Automix	Vivaglass® CEM
4- to 6-unit anterior bridges		• <sup>1)</sup>	•		• <sup>2)</sup>	Multilink® Automix	Vivaglass® CEM
4- to 6-unit posterior bridges		• <sup>1)</sup>	•		• <sup>2)</sup>	Multilink® Automix	Vivaglass® CEM
Inlay-retained bridges		• <sup>1)</sup>	•		• <sup>2)</sup>	Multilink® Automix	—

1) in combination with IPS e.max ZirCAD 2) one layering ceramic for all the IPS e.max materials

IPS e.max offers you more than high aesthetics and the ability to use it in a wide variety of all-ceramic indications. Simplify the working procedure in your dental office and

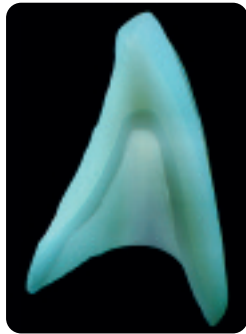
take advantage of the possibility of seating IPS e.max restorations choosing either the adhesive or conventional technique.

### The highlights

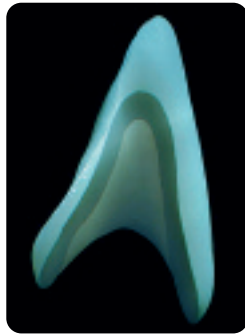
- Highly aesthetic and high-strength all-ceramic materials can be combined
- **One** layering ceramic for the IPS e.max system
- Predictable shade results and similar clinical behaviour even in different restorations veneered with IPS e.max Ceram
- Adhesive, self adhesive and conventional cementation



## IPS e.max Ceram: All you need to achieve consistent aesthetics and shading



1 | IPS e.max Ceram on ZrO<sub>2</sub>  
viewed by transmitted light

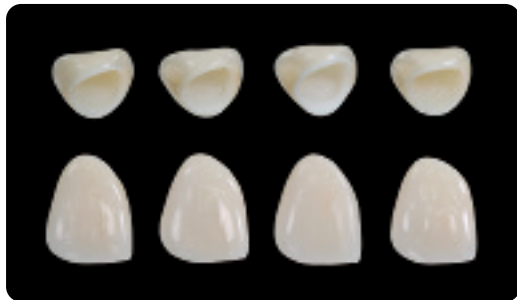


2 | Competitive ceramic on ZrO<sub>2</sub>  
viewed by transmitted light

You will benefit from the multitude of advantages offered by **one layering ceramic** for the IPS e.max system. You can choose the needed framework material – **glass-ceramic or zirconium oxide** – depending on the indication and required strength.

Your dental technician will veneer all the different IPS e.max materials with the highly aesthetic IPS e.max Ceram layering ceramic. The new material generation is based on nano-fluorapatite and endows the restorations with **utmost individual appearance and true-to-nature properties.**

IPS e.max Ceram enables different restorations to be ideally integrated – no matter which framework material you choose. Thanks to the common veneering ceramic, all IPS e.max restorations feature the **same wear properties and surface gloss** – and consistent outstanding aesthetics.



IPS e.max Ceram on four different materials (from left to right):  
IPS e.max Press, IPS e.max ZirPress, IPS e.max ZirCAD, IPS e.max CAD  
Thorsten Michel, MDT, Germany



*"The difficulties associated with restoring complex patient cases in a shade matching, highly aesthetic manner by means of different all-ceramic materials are a thing of the past with IPS e.max and IPS e.max Ceram. Thanks to only one layering ceramic with outstanding aesthetic properties, optimum integration is possible, no matter which framework material is used. The clinical properties as regards polishing, surface gloss and wear behaviour are not only convincing to me as a dentist but also to patients. The choice between adhesive and conventional cementation for the different materials considerably facilitates routine dental procedures."*

Prof Dr Daniel Edelhoff, Germany

### The highlights

- **One** layering ceramic for glass-ceramic and zirconium oxide frameworks
- Predictable shade results and the same clinical behaviour as regards wear and surface gloss, independent of the framework material
- Nano-fluorapatite for highly aesthetic properties



## IPS e.max Press and IPS e.max CAD: All you need for highly aesthetic restorations



IPS e.max Ceram on IPS e.max Press  
August Bruguera, DT, Spain

Glass-ceramics have been successfully used in all-ceramic applications for many years. Moreover, patients are increasingly interested in highly aesthetic restorations.

### IPS e.max Press

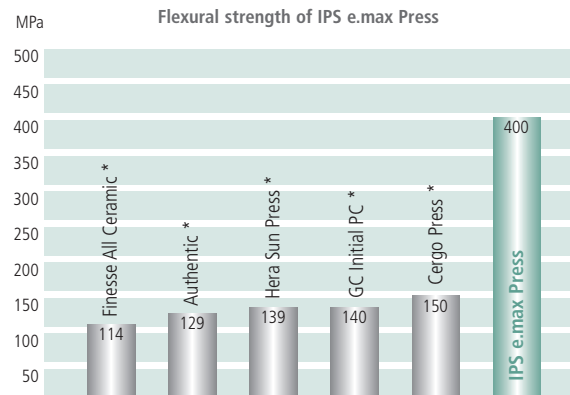
Due to IPS Empress, the press technique has established itself as a state-of-the-art processing method over the past 15 years. IPS e.max Press, the new highly aesthetic lithium disilicate glass-ceramic ingots, offer optimized homogeneity and high strength for fabricating accurately fitting restorations.

However, glass-ceramics cannot only be pressed but also milled by means of a modern CAD/CAM technique.

**IPS e.max CAD** is based on the same materials technology as IPS e.max Press and ideally combines the CAD/CAM processing technique with the high-performance lithium disilicate ceramic. In an innovative manufacturing process, IPS e.max CAD blocks are turned into tooth-coloured restorations that exhibit high strength values at the same time.

Both glass-ceramics show a true-to-nature shade effect and promote light transmission into the restoration.

It goes without saying that IPS e.max Ceram is used to veneer the glass-ceramic from the IPS e.max range.



\* not registered trademarks of Ivoclar Vivadent AG  
Source: R&D Ivoclar Vivadent AG, Schaan, 2005



### The highlights

- Highly aesthetic lithium disilicate glass-ceramic
- Lifelike aesthetics independent of the shade of the prepared tooth
- Adhesive, self-adhesive and conventional cementation due to high strength of 360–400 MPa



## IPS e.max ZirCAD and IPS e.max ZirPress: All you need for high-strength restorations



IPS e.max Ceram on IPS e.max ZirCAD  
Prof Dr Daniel Edelhoff/Oliver Brix, DT, Germany

You may already be using all-ceramics for single restorations. Given the limited indication range – e.g. for posterior bridges – however, you may have discovered that you have to fall back on the proven metal-ceramic in many clinical situations.

You will be amazed by the fascinating possibilities that CAD/CAM techniques and new materials, such as **IPS e.max ZirCAD** offer in the fabrication of all-ceramic restorations.

Zirconium oxide is currently the most efficient all-ceramic for dental applications. This material exhibits excellent biocompatibility and low heat conductivity.

Because of its excellent final strength, **IPS e.max ZirCAD** fulfils clinical requirements related to masticatory forces, even in the posterior region. IPS e.max Ceram is used for veneering the framework. Highly aesthetic, zirconium-reinforced restorations are the outcome.

For the first time ever, your dental technician is now free to fabricate, for example, the classical inlay-retained bridge with all-ceramic materials applying a minimally invasive technique. The strength of **IPS e.max ZirCAD** frameworks are optimally combined with the aesthetics and accuracy of fit of pressed ceramics. The **IPS e.max ZirPress** ingots for the press-on technique contain fluorapatite and enable optimum masking of the zirconium oxide frameworks.



IPS e.max ZirPress/ZirCAD inlay-retained  
bridge adhesively luted with Multilink

*"All-ceramic inlay-retained bridges offer an interesting treatment option for the future, as they involve a minimally invasive technique and show outstanding aesthetics. The framework structure made of partially sintered zirconium oxide ceramic in combination with a glass-ceramic (IPS e.max ZirPress) seems to have solved the strength problem at last."*

Prof Dr Daniel Edelhoff, Germany

### The highlights

- High performance even in the posterior region thanks to the unrivalled strength and high fracture toughness
- Excellent biocompatibility and low heat conductivity
- Minimally invasive, all-ceramic inlay-retained bridges in combination with IPS e.max ZirPress

## All you need for cementation

The opinion that all-ceramic restorations have to be adhesively cemented is outdated. IPS e.max restorations offer flexibility in cementation, as they can be seated **adhesively**, **self-adhesively** and **conventionally**.

Depending on the indication, you may choose between the tried-and-tested adhesive and conventional cementation materials from the coordinated assortment of Ivoclar Vivadent.

In general, glass-ceramics are etched before they are placed. For the adhesive and self-adhesive cementation, Monobond-S is used for silanization. For zirconium oxide, the Metal/Zirconia Primer is the product of choice.



	Cementation	
	adhesive	self-adhesive* / conventional
IPS e.max Press	✓	✓
IPS e.max ZirPress Veneers	✓	–
IPS e.max ZirCAD	✓	✓
IPS e.max CAD	✓	✓
IPS e.max Ceram Veneers	✓	–
Recommended cementation materials	Variolink II Variolink Veneer Multilink Automix	Vivaglass CEM

### Variolink® II / Variolink® Veneer

The dual-curing, highly aesthetic luting composite Variolink II has been successfully used for more than 10 years and offers excellent clinical results. The light-curing Variolink Veneer is especially indicated for the adhesive cementation of veneers, so enhanced shade and translucency effects can be achieved.

### Multilink® Automix

The universal resin-based luting cement offers a wide range of indications. Furthermore, it generates a very strong bond on all material surfaces. Multilink or Metal/Zirconia Primer is used for optimum bonding results.

### Vivaglass® CEM

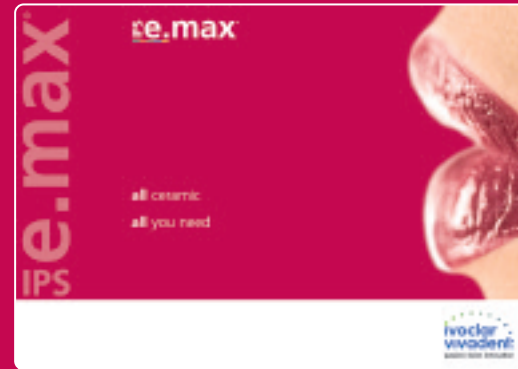
is an aesthetic glass ionomer cement for the conventional cementation of high-strength all-ceramic restorations (zirconium oxide and lithium disilicate ceramics). Vivaglass CEM contains a particularly transparent glass filler for achieving aesthetic results.

✓ recommended product combination  
 – not recommended/product combination not possible (observe the corresponding Instructions for Use)  
 \* self-adhesive powder-liquid systems

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IPS

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This brochure is also available in  
a version for dental technicians.

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