

IPS e.max[®]

INFORMATION FOR DENTISTS

IPS e.max[®] –
one system for every indication



IPS e.max® – one system for every indication

Dental patients of today are looking for more than just a healthy and functional restorative solution. Esthetics is playing an increasingly important role in their choice of dental restorations. As all-ceramics are both biocompatible and esthetic, these materials are rapidly growing in popularity.

IPS e.max® allows you to offer your patients exceptionally beautiful restorations which also demonstrate high mechanical strength.

You are bound to appreciate the wide range of possibilities that this innovative all-ceramic system will open up to you.



IPS e.max Ceram on IPS e.max CAD
(Dr A. Kurbad / K. Reichel, Germany)



IPS e.max Ceram on IPS e.max Press
(Dr U. Brodbeck, Switzerland / J. Seger, Ivoclar Vivadent, Liechtenstein)

A sophisticated concept



IPS e.max total restoration (Prof. Dr D. Edelhoff / O. Brix, Germany)

The name IPS e.max represents the sum of many good ideas. A suitable all-ceramic material is available to meet the specific indication and the requirements of the patient.

The all-ceramic system delivers high-strength and highly esthetic materials for the Press technique and for CAD/CAM technology. The system comprises the proven lithium disilicate glass-ceramic, which is mainly used for producing single tooth restorations, hybrid abutments and small bridges, and the high-strength zirconium oxide for long-span bridges.

All the ceramic materials are based on a coordinated system of materials and shades which enables the fabrication of customized restorations.

IPS e.max also offers you a choice of cementation options; crowns and bridges may be seated using not only the adhesive technique, but they can also be incorporated with a self-adhesive or conventional cementation material.

Since its inception more than a decade ago, the IPS e.max system has been monitored by the scientific community. Numerous studies attest to the longevity of the components of the system. A summary of several clinical studies shows that the overall survival rate of IPS e.max in the oral environment is 96.6 per cent.*

*Source IPS e.max Scientific Report, vol. 2, 02/2001–2013

The highlights

- Highly esthetic lithium disilicate (LS₂) for single tooth restorations and 3-unit anterior/premolar bridges
- High-strength zirconium oxide for multi-unit bridges
- One layering ceramic for predictable shade results and consistent clinical behaviour – even in combination work
- Adhesive, self-adhesive and conventional cementation

Lithium disilicate – esthetic and versatile



before



after

(Dr M. Fradeani, Italy / Dr. E. van Dooren, Belgium / Dr C. Coachman, Brazil)



before



after

(Dr F. Shull, USA / M. Roberts, USA)

IPS e.max lithium disilicate (LS₂) effectively combines esthetics and efficiency. The high-strength glass-ceramic can be used in many different situations. The indication spectrum ranges from thin veneers (0.3 mm) and minimally invasive inlays and onlays to partial crowns, full crowns and implant super-structures. The material is also suitable for fabricating hybrid abutments. In addition, three-unit bridges up to the premolar region can be produced. Lithium disilicate is also used to fabricate posterior bridges as long as it is supported by zirconium oxide.

Given the high flexural strength of 360 – 400 MPa, the restorations offer flexible cementation options. Due to their true-to-nature shade behaviour and optimum light

transmission, lithium disilicate restorations provide very esthetic results. Depending on the requirements of the patient, restorations may be created and then esthetically veneered, or alternatively monolithic full-contour restorations may be produced and efficiently characterized.

As a result of the wide range of translucency levels, IPS e.max can also be used on dark tooth structure (e.g. stained teeth or titanium abutments). When you inform your laboratory about the shade of the tooth structure, the dental technician will select the IPS e.max lithium disilicate material with the suitable opacity level for maximum esthetic results.



IPS e.max restorations (Ivoclar Vivadent, Liechtenstein)

The highlights

- Lifelike shade behaviour for highly esthetic solutions
- Long-lasting restorations due to high strength
- Versatile use and wide range of indications
- Impressive esthetic results – irrespective of the colour of the prepared tooth
- Adhesive, self-adhesive and conventional cementation, depending on the indication

Zirconium oxide – high strength and high performance



IPS e.max Ceram on IPS e.max ZirCAD
Prof. Dr D. Edelhoff/ O. Brix, Germany

The high-strength zirconium oxide is used in situations where full advantage can be taken of its strength: for example, in long-span bridges. It is one of the most efficient all-ceramics for dental lab applications.

Zirconium oxide is characterized by excellent biocompatibility and low heat conductivity. It is suitable for fabricating single tooth restorations and dental bridges with up to 14 units. A variety of options are available for completing zirconium oxide frameworks. They are either conventionally veneered with IPS e.max Ceram layering ceramic or pressed over using IPS e.max ZirPress press ceramic.

Alternatively, the frameworks can be “veneered” with IPS e.max CAD. A special glass-ceramic is used to fuse the ZrO_2 framework to the IPS e.max CAD veneer structure. This combination produces exceptionally strong and highly esthetic restorations.



IPS e.max CAD on a ZrO_2 framework
(Ivoclar Vivadent, Liechtenstein)



IPS e.max ZirPress pressed
on a ZrO_2 framework
INN-Keramik, Austria

The highlights

- High performance even in the posterior region due to high strength and high fracture toughness
- Very good biocompatibility and low heat conductivity
- High-strength bridge restorations by combining ZrO_2 and LS_2

IPS e.max® Ceram – vibrant and natural



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
(T. Michel, Germany)

You will appreciate the benefits offered by the fact that the IPS e.max system features only one layering ceramic. You can choose a suitable framework material, for example, lithium disilicate ceramic or zirconium oxide, depending on the indication to be treated and the required strength. Your dental technician will veneer all the different IPS e.max frameworks with the highly esthetic and long-term proven IPS e.max Ceram layering ceramic to impart the restoration with individual character and natural-looking vibrancy.

Irrespective of the framework material you choose, IPS e.max Ceram allows you to smoothly integrate different types of restorations. Since all the IPS e.max restorations are veneered with the same ceramic material, they exhibit the same wear properties and surface gloss. The outcome is a uniform esthetic appearance. The lifelike pink and white esthetics is achieved with gingiva materials.



IPS e.max restoration with gingival parts
(T. Michel, Germany)



"The difficulties associated with restoring complex patient cases in a shade-matching, highly esthetic 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 esthetic 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 D. Edelhoff, Germany



IPS e.max Ceram on IPS e.max Press
(Prof. Dr D. Edelhoff / O. Brix, Germany)

The highlights

- One layering ceramic for lithium disilicate and zirconium oxide frameworks
- Predictable shade results and consistent clinical behaviour as regards wear and surface gloss, independent of the framework material
- Nano-fluorapatite for highly esthetic properties
- Clinically proven for 10 years

Cementation – flexible and proven



Cementation with Multilink Automix
(Dr A. Kurbad / K. Reichel, Germany)



Cementation with Vivaglass CEM
(Dr A. Kurbad / K. Reichel, Germany)

IPS e.max crowns and bridges can be cemented adhesively, self-adhesively, or conventionally. Inlays and veneers are adhesively cemented as usual. The Cementation Navigation System CNS assists you in choosing an appropriate cementation material and shows you the options that are available to you when you use the luting materials from Ivoclar Vivadent.



This multimedia application will help you to select the most suitable cementation material.



www.cementation-navigation.com

Lithium disilicate (LS₂) is usually etched before it is placed. With the new Monobond Etch & Prime single-component ceramic primer, glass-ceramic surfaces can be etched and silanized in one step. Therefore, hydrofluoric acid does not need to be used.



Cementation with Variolink Esthetic
(Dr S. Koubi, France)

Variolink® Esthetic

The light and dual-curing luting composite combines excellent esthetics and user-friendly processing. The Effect shade system produces a gradual brightening or darkening of the restorations as required.

Multilink® Automix

This adhesive luting system is suitable for the cementation of indirect restorations made of silicate and oxide ceramics (e.g. IPS e.max), metal and metal-ceramics as well as composites. The 99% survival rate* speaks for the clinical success of this cementation material.

SpeedCEM® Plus

SpeedCem Plus is a self-adhesive, self-curing resin cement with light-curing option. It is especially suitable for the cementation of zirconium oxide supported restorations (e.g. IPS e.max CAD Veneering Solutions) and for the cementation of restorations on implant abutments.

Vivaglass® CEM

The classical self-curing glass ionomer cement is suitable for the cementation of high-strength ceramic materials, such as IPS e.max, among others. It contains a particularly transparent glass filler for achieving esthetic results.

* Source: Multilink Automix Scientific Report, vol. 01/2012



Fixed Prosthetics

IPS e.max® forms a part of the “Fixed Prosthetics” product category. The products of this category cover the procedure involved in the fabrication of fixed prosthetic restorations – from temporization to restoration care. The products are optimally coordinated with each other and enable successful processing and application.



THESE ARE FURTHER PRODUCTS OF THIS CATEGORY:

Variolink® Esthetic

The esthetic luting composite



The luting composite for exceptional esthetics and user-friendly processing

- Balanced and concise Effect shade system
- Excellent shade stability due to amine-free composition
- Easy, controlled excess removal

Cervitec®

The protective varnish containing chlorhexidine and thymol



Maintaining the quality of restorations

- Targeted – professional application in risk areas
- Effective – intensive care for high-quality restorations
- Efficient – optimum pink-white esthetics

Would you like to know more about the products of the “Fixed Prosthetics” category? Simply get in touch with your contact person at Ivoclar Vivadent or visit www.ivoclarvivadent.com for more information.

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