

[®]
e.max
IPS

Dentist

**THE POPULAR
AND RELIABLE
ALL-CERAMIC SYSTEM**




ivoclar
vivadent[®]
passion vision innovation

More all-ceramic. More choice. More IPS e.max®.

Every case has different goals and requirements. IPS e.max® helps you to master these individual challenges on a daily basis. It is now easier than ever before to achieve high strength and outstanding esthetics with this user-friendly system. IPS e.max allows you to imitate the natural beauty of tooth structure.

In addition to lithium disilicate glass-ceramics (LS₂) for fabricating single-tooth restorations and 3-unit bridges, this leading all-ceramic system also comprises high-strength, translucent zirconium oxide (ZrO₂) for fashioning monolithic crowns and multi-unit bridges.

All IPS e.max products are based on an integrated materials and shade system, which allows you to fulfil the individual needs of your patients.

IPS e.max®

IPS e.max® lithium disilicate

IPS e.max® Press / CAD

IPS e.max® zirconium oxide

IPS e.max® ZirCAD

Veneer

Inlay/Onlay

Crown

3-unit bridge

Multi-unit
bridge

IPS e.max® (LS₂)

IPS e.max® (ZrO₂)

IPS e.max® all ceramic – all you need



Impressive **reliability.** Clinically **proven.**

IPS e.max is based on more than ten years of experience, profound expertise and innovative strength. Our passion for restoring the natural beauty of teeth and thereby making people happy inspires us to forge ahead with our developments.

Numerous long-term studies confirm the outstanding reliability and safety of the material. The overall survival rate of IPS e.max restorations in the mouth of patients is 96.6 per cent². You and your patients can depend on restorations that will last for many years.

Preoperative view



After seating the restorations



IPS e.max® Press crowns: After 10 years in situ



Dr Sidney Kina/José C. Romanini, Brazil

”

IPS e.max is fantastic for my very discerning patients. This all-ceramic looks extremely lifelike. It offers durable, high-strength results regardless of the indication.

”



Dr Shan Jiang, China

Over **100**
Million restorations³

99%
customer satisfaction¹

96.6%
survival rate²

More than
10 years
of clinical evidence

1 System
The most-used
all-ceramic system
in the world³

¹ Corporate Market Insight Ivoclar Vivadent, Schaan, Liechtenstein

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

³ Based on sales figures

IPS e.max® lithium disilicate

Highly esthetic. Time-tested.

Dentists throughout the world have chosen IPS e.max for their restorations in more than 100 million cases. You too can depend on the original lithium disilicate glass-ceramic. Its strength, esthetics and user-friendliness have set new standards. It is the ideal material for creating beautiful, long-lasting restorations.

IPS e.max lithium disilicate has a wide spectrum of indications. It is suitable for many types of restorations in the anterior and posterior region. Due to its natural-looking tooth colouring and excellent light-optical properties, this material produces impressive results.

Indications:

- Veneers (≥ 0.3 mm)
- Inlays and onlays
- Occlusal veneers, partial crowns
- Minimally invasive crowns (≥ 1 mm)
- Implant superstructures
- Hybrid abutment restorations
- 3-unit bridges up to the 2nd premolar as the terminal abutment



IPS e.max in any case. The combination of high strength and superb esthetics makes choosing the all-ceramic system IPS e.max lithium disilicate an easy decision in virtually all indications. Now I can confidently choose a highly esthetic restoration – no matter what the clinical situation.



Dr James Russell, UK

Minimally invasive preparation. Maximum dependability.

Ten years of continuous quality testing has shown that IPS e.max lithium disilicate has a mean biaxial flexural strength of 500 MPa¹. The outstanding performance of the material is based on a combination of excellent flexural strength and high fracture toughness adjusted to the given dental requirements. The clinical success of the material attests to its quality. Furthermore, these properties allow you to work according to the concept of conservative dentistry.

1-mm crown

Preserving as much healthy tooth structure as possible is one of the main goals of modern dentistry. IPS e.max lithium disilicate has enamel-like properties. Therefore, it also offers a long-lasting solution for restoring the function, esthetics and biomechanics of teeth when using minimally invasive techniques. As a result of the effective combination of high strength, ideal fracture toughness and clinical durability full-contour crowns of only 1 mm thickness can be fabricated with IPS e.max lithium disilicate and placed using the adhesive cementation method.

500 MPa strength¹

2.0 – 2.5 MPa·m^{1/2} fracture toughness²

1-mm preparation and adhesive cementation



Dr Ferran Llansana / Juan Sampol Reus, Spain
IPS e.max Smile Award 2016, Europe-Middle East-Africa, 2nd place

Benefits at a glance

- Excellent esthetics and high strength (500 MPa¹)
- Versatile applications and extensive indication range
- Minimally invasive crowns (\geq 1mm)
- Clinical long-term success and scientifically documented results

¹ Mean biaxial flexural strength over 10 years, R&D Ivoclar Vivadent, Schaan, Liechtenstein

² ISO 6872:2015

IPS e.max® zirconium oxide

Efficient. Tooth-conserving.

The IPS e.max system also comprises a robust, state-of-the-art zirconium oxide ceramic called IPS e.max ZirCAD. It is the material of choice when high mechanical strength, minimal restoration thickness, impressive esthetics and good biocompatibility are required. IPS e.max ZirCAD combines all these qualities.

Due to the material's high strength of between 850 and 1,200 MPa¹ as well as its high fracture toughness the wall thickness of restorations can be significantly reduced. As a result, tooth-conserving preparation and conventional cementation are possible. You will benefit from a perfect balance between thin restoration walls and optimum translucency. IPS e.max ZirCAD offers you maximum flexibility in the anterior and posterior region. The restorations can be glazed, stained or veneered: Your dental laboratory will finish the IPS e.max ZirCAD restorations according to the specific requirements of the individual patient.



Indications:

- Crowns
- Bridges composed of three or more units
- Implant-supported superstructures



“

IPS e.max ZirCAD MT Multi offers me the optimum combination of high strength and excellent esthetics. Due to its lifelike shade transition, I can even use this material in very demanding cases.

”



Dr Stephanie Huth, Germany

¹ Mean biaxial flexural strength dependent on the translucency level, R&D Ivoclar Vivadent, Schaan, Liechtenstein

Versatile processing options. Impeccable esthetics.

IPS e.max ZirCAD is also available in polychromatic form. An advanced composition of raw materials is responsible for the outstanding mechanical properties (850 MPa¹) of the material. They allow anterior restorations showing lifelike transitions of colour and translucency to be fabricated, which benefit from the stability provided by a monolithic structure. IPS ZirCAD MT Multi imparts maximum esthetics to monolithic crowns and bridges without the need for a veneering ceramic.



850 – 1,200 MPa strength¹

0.6 – 0.8-mm preparation²

Conventional cementation is possible



Dr Tetsuya Uchiyama / Michiro Manaka, Japan
IPS e.max Smile Award 2016, Asia Pacific, 1st place

Benefits at a glance

- Lifelike esthetics combined with high strength
- Reduced restoration thickness enables tooth-preserving preparation
- Large indication spectrum
- Biocompatibility

¹ Mean biaxial flexural strength dependent on the translucency level, R&D Ivoclar Vivadent, Schaan, Liechtenstein

² Preparation dependent on the particular translucency level

IPS e.max® Ceram

Exact shade match. Lifelike vibrancy.

You will appreciate the numerous benefits offered by a standardized shade system within the IPS e.max product range and the availability of a matching layering ceramic. You can choose the most suitable material – either IPS e.max lithium disilicate or IPS e.max zirconium oxide – depending on your preference, the type of indication to be treated or the required strength. Small IPS e.max lithium disilicate restorations in the anterior region, for example, are ideally adjusted to IPS e.max ZirCAD restorations in the posterior region.

Your dental technician will characterize or veneer the IPS e.max framework with the highly esthetic and long-term proven IPS e.max Ceram layering ceramic. This imparts lifelike vibrancy to the restoration.

Regardless 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 a standardized ceramic material, they exhibit the same wear properties and surface gloss. This forms the basis for a consistent esthetic appearance.



Dr Luis Sanchez, Mexico / Alen Alić, Croatia
IPS e.max Smile Award 2016, 1st place



Shade selection. Minimally invasive preparation.

If an all-ceramic restoration is to look lifelike and natural, its shape and shade have to blend in seamlessly with the remaining dentition. Differences in the shade of the restoration and the natural tooth structure adversely affect the appearance of the teeth in particular.

The following factors influence the integration of the restoration in terms of its shade:

- **Shade of the prepared tooth**
- **Shade, translucency and thickness of the restoration**
- **Indication and material**

The smart IPS e.max Shade Navigation app shows you how these factors affect the overall shade. It also helps you to communicate your shade information to your dental technician.



Preparation

In order to obtain an adequately stable restoration, certain minimum thicknesses have to be observed. The recommended indication ranges, preparation instructions and connector dimensions, depending on the type of material used (lithium disilicate or zirconium oxide), must be strictly observed when using the materials of the IPS e.max system.

Careful preparation is decisive for the accuracy of fit and longevity of the restorations. The margins have to be exactly prepared with a circumferential shoulder or chamfer and rounded inner edges. Sharp transitions and feather edges should be avoided.



Determination of the preparation shade using the IPS Natural Die material shade guide



Prof. Dr Daniel Edelhoff, Germany

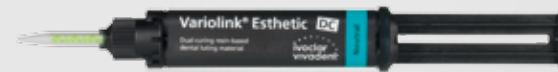
Modern cementation materials. Strong combinations.

The esthetic cementation option you use significantly influences the overall appearance of your all-ceramic restorations. Depending on the indication, IPS e.max restorations can be placed using adhesive, self-adhesive or conventional cementation methods.

Variolink® Esthetic

The esthetic light and dual-curing composite combines unparalleled esthetics with user-friendly handling. The Effect shade system produces a gradual brightening or darkening of the restorations as required.

- Well-balanced and concise Effect shade system
- Excellent shade stability due to the amine-free composition
- Easy, controlled removal of excess



Ideal in combination with the innovative self-etching glass-ceramic primer Monobond Etch&Prime®.



Multilink® Automix

The universal 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 composite resins. The material establishes an excellent, durable bond.

- Strong bond – dual and self-curing
- Universal – bonds silicate and oxide ceramics as well as metal
- Clinically proven – numerous long-term studies



Ideal in combination with the universal bonding agent Monobond® Plus.



SpeedCEM® Plus

The self-adhesive, self-curing resin cement can be optionally light cured. It is particularly suitable for the cementation of zirconium oxide and metal-ceramic restorations and for restorations on implant abutments. The cement is characterized by high performance and user-friendliness.

- Excellent self-curing results; ideal for zirconium oxide and metal-ceramics
- Efficient process involving only one component
- User-friendly handling and easy removal of excess



Ideal in combination with the universal cleaning paste Ivoclean®.



The Cementation Navigation System (CNS) provides you with practical orientation and guidance in the selection of the most suitable cementation materials.



www.cementation-navigation.com



	Curing Method Conditioning	Variolink® Esthetic		Multilink® Automix	SpeedCEM® Plus
		Self-curing	Dual-curing	Self-curing optional light-curing	Self-curing optional light-curing
		Adhesive Adhese® Universal or Syntac®		Adhesive Multilink® Primer A/B self-etching	Self-adhesive
		Monobond® Etch & Prime		Monobond® Plus	
IPS e.max lithium disilicate glass-ceramic (LS ₂)					
	Occlusal veneers	✓	✓	—	—
	Thin veneers, veneers	✓	✓	—	—
	Inlays, onlays, partial crowns	✓	✓	✓	—
NEW	Minimally invasive crowns (1 mm)	—	✓	—	—
	Crowns	—	✓	✓	✓*
	3-unit bridges	—	✓	✓	✓*
IPS e.max zirconium oxide ceramic (ZrO ₂)					
	Crowns	—	—	✓	✓
	Bridges	—	—	✓	✓

* Conditioning with Monobond Etch&Prime®



Please observe the corresponding Instructions for Use.

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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