

## IPS e.max® System

Designed with simplicity and versatility in mind, IPS e.max delivers metal-free aesthetics and durability offering high-strength materials for both the PRESS and the CAD/CAM techniques.

No matter which technique you choose, all components are available from one manufacturer. If you prefer to work with the PRESS technique, two different types of ingots are available: IPS e.max Press, a high-strength glass-ceramic and IPS e.max ZirPress, an aesthetic glass-ceramic which is pressed onto zirconium oxide in a fast and efficient procedure. For CAD/CAM applications, either the highly aesthetic IPS e.max CAD ceramic glass blocks or the high-strength IPS e.max ZirCAD zirconium oxide can be used, depending on the case requirements. The nano-fluorapatite layering ceramic IPS e.max Ceram completes the all-ceramic system. This material is used to veneer all IPS e.max components, whether they are glass-ceramic or zirconium oxide.



IPS e.max Press are biocompatible lithium disilicate glass-ceramic ingots. They offer the fit, form and function expected of pressed ceramics. In addition, they offer improved flexural strength (400 MPa).

IPS e.max CAD unites modern processing technology with a high-performance material. The lithium disilicate glass-ceramic is processed for the laboratory in a crystalline intermediate phase. In this "soft" state, the material exhibits its unusual "bluish" color and strength of approximately 160 MPa. In this "blue" phase, the restorations can be manually adjusted or cut-back in a fast and efficient fashion. IPS e.max CAD acquires its final strength of 360 MPa and the desired aesthetic characteristics, such as tooth color, translucency and brightness, during a simple and quick crystallization process.

IPS e.max ZirPress ingots ideally combine the PRESS and CAD/CAM techniques, providing accuracy of fit as well as the strength of zirconium oxide-reinforced restorations. The fluorapatite glass-ceramic ingots are used to press onto IPS e.max ZirCAD frameworks.

IPS e.max ZirCAD frameworks are either veneered with IPS e.max Ceram or IPS e.max ZirPress. A zirconia liner establishes an optimum bond. Due to its excellent final strength, IPS e.max ZirCAD is an excellent choice for indications where high strength is required, such as posterior bridges.

IPS e.max Ceram is the connecting element between the different components of the all-ceramic system. The use of one layering ceramic enables you to achieve highly aesthetic results on glass-ceramics as well as zirconium oxide.

## IPS e.max® Lithium Disilicate

IPS e.max is a lithium disilicate glass ceramic that optimizes translucency, durability and strength for full anatomical restorations.

IPS e.max lithium disilicate restorations exhibit superior durability featuring 360-400 MPa of flexural strength. The opalescence, translucency and light diffusion properties of IPS e.max lithium disilicate replicate natural tooth structure for beauty and undetectable restorations.



## IPS e.max<sup>®</sup> Biocompatibility

Biocompatibility is regarded as a material's quality of being compatible with the biological environment, i.e. the material's ability to interact with living tissues by causing little or no biological reactions. A dental material is considered to be "biocompatible" if its properties and function match the biological environment of the body and do not cause any unwanted reactions.

### Toxicon Testing Laboratory:

Based on the criteria of the protocol, IPS e.max lithium disilicate is considered non-cytotoxic and meets the requirements of the Agar Diffusion Test, ISO 10993-5 guidelines.

### Dr. John Wataha Report:

A study by Dr. John Wataha concluded that the biocompatibility of IPS e.max lithium disilicate was equal to or greater than many commonly used dental alloys and dental restoratives (composites and glass ionomers).



## IPS e.max<sup>®</sup> Aesthetics

IPS e.max lithium disilicate offers aesthetic options regardless of fabrication technique. Lithium disilicate is available in 16 A-D shades and 4 bleach shades with a wide variety of shades to choose from for creating exceptional true-to-nature restorations.

### BEFORE



Credits: Dr.Saud Dizayee Denta Specialized Polyclinic Kurdistan /Iraq



Credits: Dr. Jiang Shan (dentist and CDT)



Credits: Dr. Jose L. Rivera-Zayas (Puerto Rico)  
and Mr. Vincent Devaud, MDT (CA, USA)

### AFTER



6 Broadway N Suite 200  
Fargo, ND 58102  
[www.pdlfargo.com](http://www.pdlfargo.com)

T: 701.280.9089  
TF: 800.568.4145

## IPS e.max® Cementation Guide

### Pre-Treatment of IPS e.max Restorations



**1. Apply IPS Etching Gel (5% hydrofluoric acid) to internal surfaces of restoration.**

---



**2. Allow to react for 20 seconds.**

---



**3. Rinse and dry.**

---



**4. Apply Monobond Plus (restorative primer) to internal surfaces of restoration.**

---



**5. Allow to react for 60 seconds.**

**6. Air dry.**

### Interactive Presentation

Click below for videos on Treatment Planning, Tooth Prep, Impressions and more.

<http://www.ivoclarvivadent.us/emaxchangeseverything/cementation/placement.php#>

6 Broadway N Suite 200  
Fargo, ND 58102  
[www.pdlfargo.com](http://www.pdlfargo.com)

T: 701.280.9089  
TF: 800.568.4145