

IPS Empress® CAD for the CAD/CAM Technology –
Information for Dentists

Confidence

Reliability

Aesthetics



IPS Empress® CAD

**The world's leading all-ceramic*



A time-tested system with new possibilities



IPS Empress revolutionized the processing of ceramic materials about 20 years ago and has since become very popular with IPS Empress users and patients throughout the world. More than 35 million restorations have been fabricated with the material to date. As a result, the system has gained a reputation for producing long-lasting, natural-looking

results and maintaining high quality standards.

In recent years, the expectations of patients with regard to aesthetics and biocompatibility have continued to rise. As a consequence of this «aesthetic revolution» and the emergence of new processing techniques, such as CAD/CAM, all-ceramics have become very popular.

Therefore, the time has come to fulfil this demand for heightened aesthetics and all-ceramics by introducing a new IPS Empress material.

The new material allows you to fabricate highly aesthetic IPS Empress all-ceramic restorations chairside.



HIGHLIGHTS OF IPS EMPRESS

- Roughly 20 years of clinical experience with leucite glass-ceramics
- Proven ceramic material with a flexural strength of 160 MPa
- Highly aesthetic restorations and excellent shade adaptation



More versatility with IPS Empress

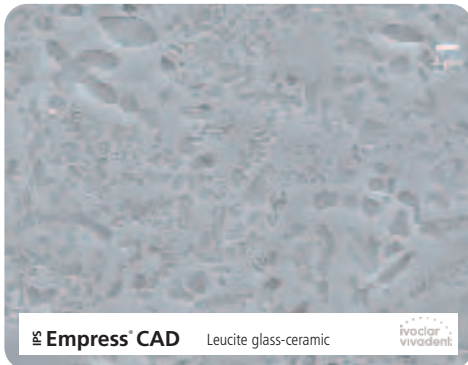


The IPS Empress materials are made of an extremely homogeneous leucite-based ceramic, which scatters light like natural enamel and blends in well with its surroundings.

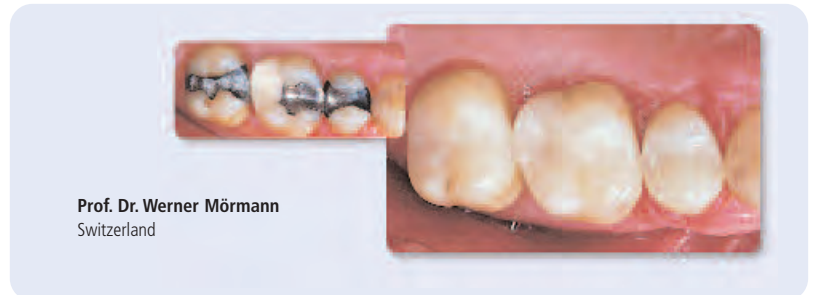
IPS Empress CAD obtains its outstanding homogeneity and strength of 160 MPa in an optimized industrial manufacturing process. IPS Empress CAD is available

in A-D, Chromascop, and 4 Bleach shades, as well as in 6 sizes. It can be used for the fabrication of all-ceramic restorations for individual teeth, such as inlays, onlays, crowns, and veneers. However, the teeth have to be prepared carefully beforehand to establish the prerequisites needed for the correct fit of the restoration and long-lasting results.

Subsequently, your IPS Empress restorations can be quickly and efficiently polished to a high gloss or characterized with staining materials in a few easy steps and then glazed to further enhance their aesthetic appearance.



SEM image of IPS Empress CAD
Source: R&D Ivoclar Vivadent AG, Schaan, Liechtenstein



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Switzerland



Dr. Arnd Peschke
Liechtenstein
Ivoclar Vivadent



Dr. Andreas Kurbad
Germany

Always the right block ...



The innovative **IPS Empress CAD Multi** Block successfully combines easy handling and sophisticated and exciting aesthetics.

Because of the smooth colour transition between the dentin and incisal areas, these polychromatic blocks produce highly aesthetic and natural-looking results, even without characterization.

IPS Empress CAD Multi Blocks are available in the

five most popular A–D and two Bleach BL shades, as well as in 3 sizes. They are ideal for fabricating full and partial crowns as well as veneers. The blocks feature a high level of chroma and lifelike opacity in the cervical area and the desired level of translucency in the incisal region.

The possibility of individual positioning featured by the software provides even more flexibility.

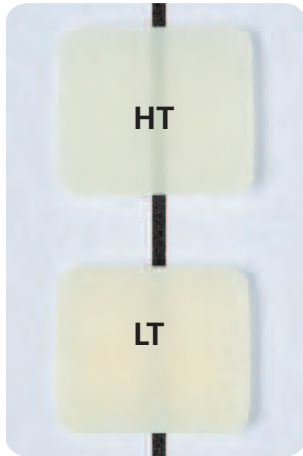


The restoration imitates the aesthetic properties of the natural tooth. The level of chroma is at its highest in the cervical part of the tooth and it decreases towards the translucent incisal area.

INDICATION OF IPS EMPRESS CAD BLOCKS

Multi Blocks	HT Blocks (High Translucency)	LT Blocks (Low Translucency)
Lifelike transition of shade, translucency and fluorescence	Higher translucency and chameleon effect Lower brightness values	Lower translucency and chameleon effect Higher brightness value
Anterior and posterior crowns	Inlays	Anterior and posterior crowns
Partial crowns	Onlays	Partial crowns
Veneers	Veneers	Veneers

... for each individual patient



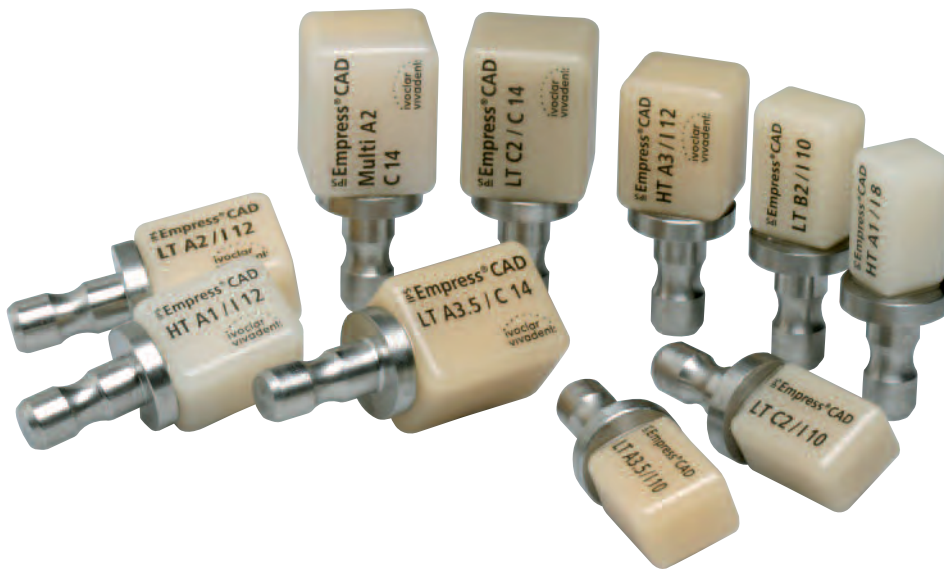
The monochromatic **IPS Empress CAD HT** (High Translucency) Blocks exhibit a higher translucency and lower brightness values than the LT Blocks. They are particularly suitable for fabricating inlays and onlays because of their exceptional «chameleon effect». The high translucency of the material and its lifelike fluorescence allow the

restoration to blend in seamlessly with the surrounding dentition.

The **IPS Empress CAD LT** Blocks are characterized by their high level of brightness and true-to-nature chroma. Therefore, they are particularly suitable for fabricating larger restorations. The specially adjusted brightness of the material

prevents «greying» of full and partial restorations.

The coordinated fluorescence enables seamless integration of the restoration in the surrounding dentition, even under changing light conditions.



Dr. G. Koike
Japan



Dr. C. Winterholler
USA



Dr. Klaus Wiedhahn
Germany



Dr. Stéphane Cazier
France

A variety of characterization options

Your IPS Empress restorations can be characterized according to the individual requirements of your

patients. As a result, you will be able to restore the smile of even your most discerning patients.

IPS Empress allows you to achieve exceptionally aesthetic results in a few easy steps.

INTERNAL SHADING

Tetric Color stains are used to imitate natural characteristics in an individualized and precise manner. The light-curing material is applied to the

inner surface of the veneer (similarly to the reverse glass painting technique) and light cured, ideally with one of

the high-performance LED lights from the bluephase line.

Veneer restoration, Dr. K. Wiedhahn, Germany



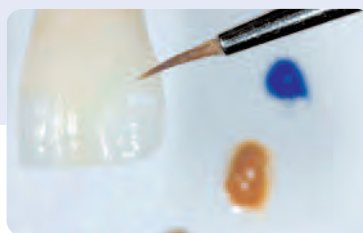
EXTERNAL SHADING

IPS Empress Universal Shades and **Stains** are applied to the outer surfaces of the restoration and subsequently fired in the Programat CS ceramic

furnace. Crowns and veneers can be conventionally «stained» in this manner. It is up to you to decide which

characteristic you would like to highlight.

Jürgen Seger, Ivoclar Vivadent AG, Liechtenstein



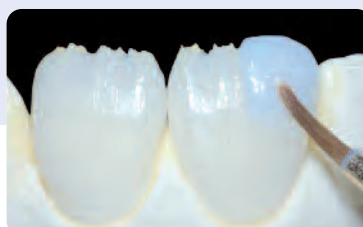
CUT-BACK TECHNIQUE

The incisal third of fully anatomical IPS Empress CAD veneers and anterior crowns is cut away and then built up with the opalescent **IPS Empress Esthetic**

Veneer ceramic layering materials. This method produces a natural-looking and highly aesthetic appearance.

The vital appearance of the restoration is further enhanced with this technique.

Jürgen Seger, Ivoclar Vivadent AG, Liechtenstein



Coordinated products for heightened comfort in routine procedures

Optimally coordinated products for the entire treatment procedure make your job easier and enhance the overall quality of the restoration.

OptraGate® is a helpful accessory during shade determination and intraoral image taking by providing improved access to the oral cavity.

The **IPS® Contrast Spray Chairside** balances the optical properties of dentin and enamel and allows the teeth to be scanned successfully.

The **Virtual® CADbite** silicone with reflective surface provides excellent scanning results and is suitable for antagonist registration.

The restorations are characterized using **Tetric Color** or the **IPS Empress** materials.

The stains are fired in the **Programat CS**. The ceramic furnace convinces users with its outstanding firing results and the appealing operating concept.

Adhesive cementation of the IPS Empress CAD restorations is performed with an **OptraDam** in place. This rubber dam considerably enlarges the treatment field, while at the same time isolating all four quadrants.

For the adhesive cementation of your IPS Empress CAD restorations you can depend on clinically proven composites. The classic **Variolink® II** has convinced users with long-lasting high quality results. With its «value shade system», the light-curing **Variolink Veneer** allows translucent veneers to be lightened or darkened.

Multilink® Automix offers a wide range of indications, very high bonding values, as well as good dentin sealing properties.

The **bluephase®** curing light reduces the light polymerization times with its high light intensity.

You can achieve excellent high-gloss polishing results and a homogeneous surface with the **OptraFine** diamond polishing system.

Optra Gate



IPS Contrast Spray Chairside



Virtual CADbite



Tetric Color IPS Empress Universal Shades/Stains



Programat CS



OptraDam



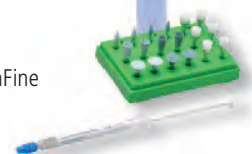
Multilink Automix Variolink Veneer Variolink II



bluephase



OptraFine



	Variolink® (Variolink II, Variolink Veneer)	Multilink® (Multilink Automix)
Veneers	✓	✗
Inlays	✓	✓
Onlays	✓	✓
Partial crowns	✓	✓
Anterior and posterior crowns	✓	✓

✓ Especially recommended ✗ Contraindicated



IPS Empress[®] System

IPS Empress CAD allows you to provide your patients with highly aesthetic restorations in only one appointment. A wide range of optimally coordinated products is available to facilitate the treatment procedure, from shade determination to cementation. In addition to making your job easier, they will also enhance the overall quality of the restoration.

Ask your Ivoclar Vivadent consultant for more detailed information about the individual products and systems or visit www.ivoclarvivadent.com

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