

IPS Empress® System
Information for the
LABORATORY



Confidence

Reliability

Esthetics



IPS Empress® SYSTEM

The ultimate esthetic restorative system

A TIME-TESTED SYSTEM OFFERS NEW POSSIBILITIES





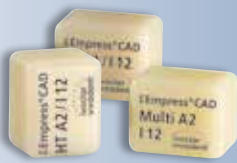

More than 20 years, the name Empress has been associated with the highest level of esthetics in the reconstruction of dental defects. More than 40 million restorations speak for the durable lifelike appearance, the continuing success and the high quality standard of the material.

The IPS Empress System has been further developed and continues to enthuse users with decisive improvements in terms of esthetics, function and processing.

In 2004, the system was further expanded and optimized with the introduction of the **IPS Empress Esthetic** pressable ceramic.

This was followed by the release of **IPS Empress CAD** in 2006, creating an opportunity for esthetic restorations to be milled using CAD/CAM technology.



 IPS Empress® System		
DENTAL TECHNICIANS	CAD/CAM USERS	DENTISTS
<p>IPS Empress Esthetic</p>  <p>Lab-fabricated ceramic restorations</p>	<p>IPS Empress CAD</p>  <p>Lab- or chairside-fabricated ceramic restorations</p>	<p>IPS Empress Direct</p>  <p>Direct composite resin restorative therapy</p>

MORE VERSATILITY IN THE LABORATORY WITH IPS EMPRESS®

The IPS Empress all-ceramic material for use in the dental laboratory is made of an extremely homogeneous leucite-based ceramic, which scatters light like natural enamel and blends in well with its surroundings. This material exhibits lifelike translucency and convincing esthetic properties.

As the press ceramic IPS Empress Esthetic and the ceramic blocks IPS Empress CAD are based on the same materials

composition, the two products demonstrate exceptional optical properties and strength values. Therefore, highly esthetic all-ceramic single-tooth restorations can be efficiently pressed or milled.

Irrespective of the processing technique used, IPS Empress enhances your laboratory's flexibility, esthetic results, performance and economic efficiency.

HIGHLIGHTS

- Highly esthetic all-ceramic restorations
- Proven ceramic material with a flexural strength of 160 MPa
- More than 20 years of experience with leucite glass-ceramics
- Same material composition of IPS Empress Esthetic and IPS Empress CAD

Physical properties at a glance IPS Empress Esthetic and IPS Empress CAD

Flexural strength	160 MPa
Hardness	6200 MPa
Modulus of elasticity	62 GPa
Solubility	25 µg/cm ²

Source: R&D Ivoclar Vivadent AG, Schaan

Clinical studies on IPS Empress

Leucite-reinforced glass-ceramic inlays and onlays after eight years in vivo

Survival rate after

8 years: 92%

N. Krämer, A. Petschelt, R. Frankenberger, J Dent Res Spec Iss (2002); 81:Abstr. #1696:A-224

Six-year clinical evaluation of ceramic inlays and onlays

At 6 years, 93.7% of the restorations were judged clinically acceptable.

Survival rate after 6 years: 96.9%

A. Galiatsatos, D.Bergou, Quintessenz Int (2008); 39:407-412

Clinical evaluation of leucite-reinforced glass-ceramic crowns over 11 years

Survival rate after 11 years: 95.2%

M. Fradeani, M. Redemagni, Quintessenz (2003); 54:379-386

10-year clinical performance

IPS Empress restorations received high patient and dentist acceptance for resistance to fracture and wear and for excellent esthetics. The Dental Advisor continues to highly recommend IPS Empress after 10 years.

The Dental Advisor (2004);21(3):6

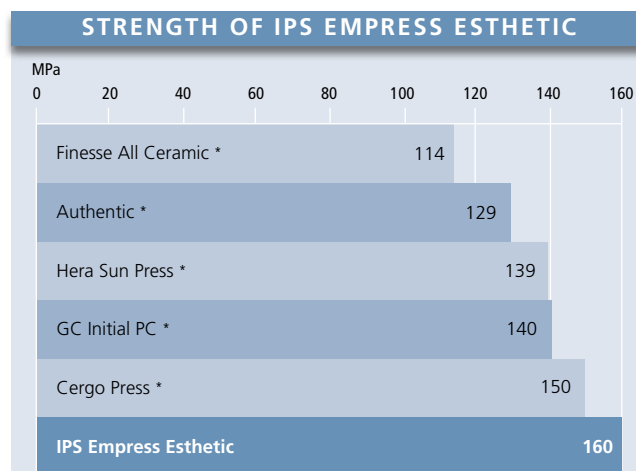


THE PRESS PROCESS

EFFICIENT AND PROVEN

Since the beginning of the 1990s, the press technique has been producing precision all-ceramic restorations and thus satisfying dental professionals and patients alike.

Because of its strength and exceptional esthetics, **IPS Empress Esthetic** is the material of choice for fabricating esthetic inlays, onlays, crowns and veneers with the press technique.



Source: R&D Ivoclar Vivadent AG, Schaan, May-July 2005

* not registered trademarks of Ivoclar Vivadent AG

IPS Empress[®] ESTHETIC



Matt Roberts / Dr David Hornbrook, USA



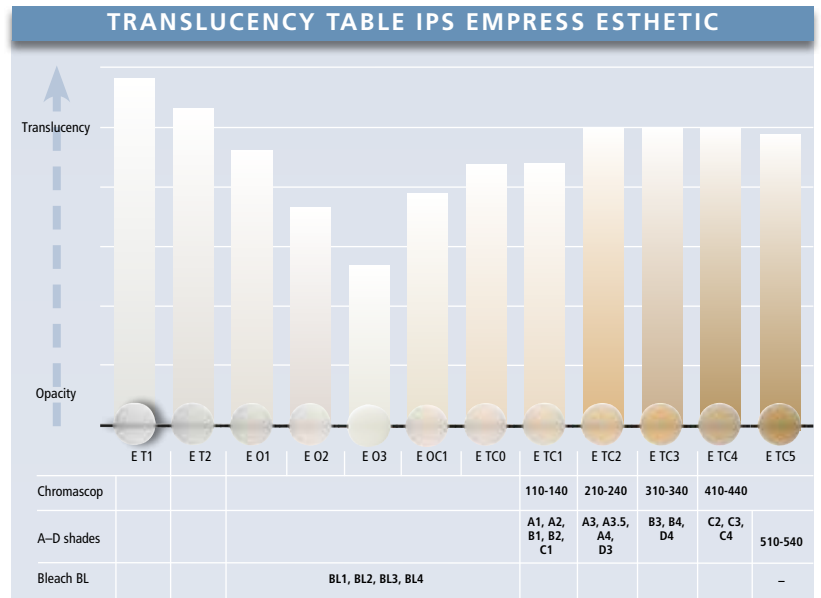
THE MATERIAL

IPS EMPRESS® ESTHETIC INGOTS

IPS Empress Esthetic comes in a comprehensive range of ingots. A total of 12 ingots in 7 levels of translucency are available, which will fulfil even the most discerning esthetic requirements.

The ingots are supplied in the 6 familiar TC shades. Hardly any characterization is required for the slightly shaded TC ingots. Consequently, they can be used as universal ingots for all the indications. In addition, 6 further shades are available, which are ideal for the inlay and veneering technique.

The final tooth shade is produced through a combination of the shade of the prepared tooth, the ingot, the stains or layering material and the cementation material.



Source: R&D Ivoclar Vivadent AG, Schaan, February 2011

HIGHLIGHTS

- 12 ingots in 7 levels of translucency
- True-to-nature light scattering and balanced chameleon effect
- Excellent press results and accuracy of fit



PRESS FURNACES

The Ivoclar Vivadent press furnaces **Programat® EP 3000/G2** and **EP 5000/G2** are coordinated with the processing of the IPS Empress Esthetic material. High-precision press results and smooth surfaces can be achieved in conjunction with the investment materials IPS Empress Esthetic Speed or IPS® PressVEST.



Programat EP 3000/G2



Programat EP 5000/G2

CAD/CAM PROCESSING

DIGITAL AND MODERN

CAD/CAM techniques are opening up new possibilities in many different fields. You too can take advantage of this modern technology in combination with the high-performance **IPS Empress material**.

The extensive range of IPS Empress CAD blocks for your inLab® (Sirona) CAD/CAM system allows you to select the block that best suits your case requirements.

The exceptional ceramic is available in two levels of translucency: HT (High Translucency) and LT (Low Translucency). Within these translucency levels, there is a choice between Chromascop and A–D shades. To complete the range, the IPS Empress CAD LT blocks are also supplied in 4 modern Bleach shades (BL1–BL4). The polychromatic IPS Empress CAD Multi blocks are the highlight of the IPS Empress CAD range of products.



Because of their high translucency, the **IPS Empress CAD HT blocks** are ideal for fabricating smaller restorations (e.g. inlays), for which a balanced, true-to-nature chameleon effect is desired. The influence of the surrounding dentition refines the shade of the restoration.

Together with the lifelike fluorescence, this results in an optimum integration in terms of shade.



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 the fabrication of larger restorations.

These blocks exhibit an adjusted fluorescence and are therefore ideal for the cut-back technique in conjunction with IPS Empress Esthetic Veneer.

IPS Empress® CAD

INDICATIONS OF IPS EMPRESS CAD

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

THE HIGHLIGHT

IPS EMPRESS® CAD MULTI BLOCKS

The innovative **IPS Empress CAD Multi blocks** are an ideal supplement to the system and offer a unique combination of efficiency and sophisticated and exciting esthetics.

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

IPS Empress CAD Multi blocks are available in the 5 most popular A–D as well as 2 Bleach BL shades.

They are ideal for fabricating full and partial crowns as well as veneers. The blocks feature a high level of chroma and a lifelike opacity in the cervical/dentin areas and the desired level of translucency in the incisal region.

The precisely adjusted transition of shade and fluorescence enables you to fabricate beautiful and reproducible restorations with remarkable efficiency.



HIGHLIGHTS

- More than 20 years of experience with leucite glass-ceramics
- 3 different blocks for every patient case at hand
- You can choose between a lifelike chameleon effect, natural-looking brightness value or a true-to-nature shade transition



The esthetic properties of the IPS Empress CAD Multi blocks imitate those of natural teeth. The level of chroma and fluorescence is highest in the cervical portion and decreases towards the translucent incisal area.

IPS EMPRESS® SYSTEM

ALL YOU NEED FOR BEST RESULTS

STAINS AND LAYERING MATERIALS

Your know-how and the characterization possibilities offered by the system will allow you to fabricate exceptionally esthetic restorations with IPS Empress.

External shading

The **IPS Empress Universal Shades** and **Stains** in paste form are applied to the outer surfaces of the restoration for highlighting individual characteristics and subsequently fired in the Programat furnaces.

Hence, it is possible to reproduce all the Chromascop and A–D shades. The lifelike appearance of the incisal area is further enhanced using the two incisal shades.



J. Seger, Ivoclar Vivadent AG, Liechtenstein

With your expertise you can help your dentist to restore the smile of even the most discerning patients.

Cut-back technique

With the opalescent **IPS Empress Esthetic Veneer** layering material, the veneering technique has come yet another step closer to imitating nature. In the **cut-back technique**, the incisal third of fully anatomical IPS Empress Esthetic or IPS Empress CAD restorations is reduced to a dentin-mamelon structure. Subsequently, internal characteristics, such as mamelons, are applied using the Wash pastes.



These specially shaded and ready-mixed "two-in-one" pastes enable a homogeneous bond and improve the natural esthetics. Fourteen layering materials, of which three are opalescent, are available for building up the incisal third.



J. Seger, Ivoclar Vivadent AG, Liechtenstein

BECAUSE QUALITY AND ESTHETICS CAN BE REPRODUCED

CERAMIC FURNACES

The latest generation of ceramic furnaces is specially coordinated with the IPS Empress materials. The furnaces produce excellent firing results in the fabrication of ceramic restorations.

The furnaces in the Programat series – **Programat P310, P510** and **P700/G2** – are characterized by innovation, quality and many years of success.

The QTK muffle technology represents the core of this furnace generation. It enables the firing procedure to be precisely controlled and ensures even heat distribution in the firing chamber.

You can therefore choose the Programat furnace that best meets your and your dental lab's requirements.



Programat 310



Programat P510



Programat P700/G2

CEMENTATION

Why not recommend that your dentist use the clinically proven Ivoclar Vivadent luting materials for the adhesive cementation of your restorations?



The placement of IPS Empress restorations is easy and convenient with **Variolink® II**, **Variolink® Veneer** or **Multilink® Automix** and the results are exceptionally esthetic.



Dr David Hornbrook, USA

	Variolink® Variolink II Variolink Veneer	Multilink® Multilink Automix
Veneers	✓	—
Inlays	✓	✓
Onlays	✓	✓
Partial crowns	✓	✓
Anterior and posterior crowns	✓	✓

✓ Especially recommended — Not recommended

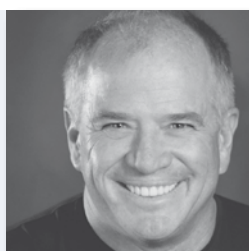
THE RESULTS SPEAK FOR THEMSELVES

IPS Empress[®] SYSTEM



Shigeo Kataoka
Japan

// IPS Empress allows the fabrication of all-ceramic restorations that harmoniously blend into the oral environment. //



Matt Roberts
USA

// IPS Empress delivers excellence once again. The new IPS Empress Esthetic materials give me the tools I need to achieve the esthetic goals our patients demand. //



LOOKING BACK ON MORE THAN 20 YEARS OF SUCCESS



Jürgen Seger
Liechtenstein, Ivoclar Vivadent AG



// IPS Empress Esthetic allows high-quality ceramic veneers to be fabricated using an effective and efficient technique.

Their optical appearance completely convinces patients and experts alike. //



Stéphane Cazier
France



// The increased tolerance during shade determination and the resulting improved integration into the natural environment is what I like particularly about the IPS Empress CAD Multi blocks. The colour transition of the blocks increases the natural-looking appearance after glazing. //



IPS Empress[®] System

Please contact your Ivoclar Vivadent consultant for detailed information about the individual products and the system.

For additional information, please go to:

www.ivoclarvivadent.com

Descriptions and data constitute no warranty of attributes.
Printed in Germany
© Ivoclar Vivadent AG, Schaan, Liechtenstein
603084/en/2014-02

Ivoclar Vivadent AG
Bendererstr. 2
9494 Schaan
Liechtenstein
Tel. +423 / 235 35 35
Fax +423 / 235 33 60
www.ivoclarvivadent.com

**ivoclar
vivadent**[®]
passion vision innovation