# **IPS Empress<sup>®</sup> Direct.** The only Direct Composite that can be called Empress!

Confidence

Reliability

**Esthetics** 

# Empress Direct

Direct Esthetic Composite

The esthetics of a ceramic with the convenience of composite.



## IPS Empress<sup>®</sup> System A time-tested system ... with new possibilities



For nearly 20 years, the name IPS Empress has been associated with the highest level of esthetics in the reproduction of natural tooth characteristics. With more than 40 million restorations having been fabricated with the material to date, the system has gained a reputation for producing long-lasting, natural-looking results and maintaining high quality standards. Through the years, the IPS Empress System has been continuously further developed to keep abreast of the latest trends. As a consequence, decisive enhancements have been made with regard to its esthetics and function and its processing properties.

In 2004, the product portfolio was further expanded and optimized by introducing the new **IPS Empress Esthetic** pressable ceramic.

Since **IPS Empress CAD** was launched in 2006, the popular IPS Empress material can also be processed with state-of-the-art CAD/CAM technology – even directly at the chairside.

With the introduction of **IPS Empress Direct** in 2009, a product was added to the IPS Empress range that combines the esthetics of a ceramic with the application advantages of composite.

In 2010, the IPS Empress portfolio was extended to include **IPS Empress Direct Flow "Art"**, which comprises three special flowable Effect shades. These materials allow individual optical effects and lifelike anatomical characteristics to be achieved.

#### **IPS Empress System:**

- Confidence
- Reliability
- Esthetics



## **IPS Empress<sup>®</sup> Direct** The esthetics of a ceramic with

The esthetics of a ceramic with the convenience of composite



IPS Empress Direct is a universal nano-hybrid filling material for direct esthetic restorative procedures. IPS Empress Direct provides a high gloss polish and the lifelike opacity, fluorescence and opalescence that is required to fabricate beautiful and naturally esthetic restorations with remarkable efficiency. The three special flowable Effect materials of the IPS Empress Direct Flow "Art" range enable individual optical effects and the anatomical features of anterior teeth to be recreated in a lifelike fashion.

Dental professionals, researchers and colour specialists worked together to develop IPS Empress Direct's new resin technology maximizing handling characteristics, physical properties and uncompromised shade match. From a chemical point of view, the filler particles used in IPS Empress Direct consist of the same basic components as IPS Empress ceramic. Therefore, IPS Empress Direct the ideal composite for use in combination with IPS Empress ceramics, because it allows esthetic, natural-looking direct restorations to be created.

The IPS Empress System continues to be synonymous with highly esthetic restorations, giving even your most discerning patients the radiant smiles they desire.

#### **IPS Empress Direct:**

The only Direct Composite that can be called Empress!

- Exceptional handling
- Simplified application
- True-to-nature shades
- Superior polish



Dr Arnd Peschke, Ivoclar Vivadent AG, Liechtenstein





# **IPS Empress**<sup>®</sup> Direct

The IPS Empress Direct universal composite system offers 32 shades and 5 levels of translucency. The true-to-nature shades and opacities result in beautiful, natural-looking restorations.

#### TRANSLUCENCY AND OPACITY

Like natural dentin, the IPS Empress Direct Dentin shades exhibit a higher opacity and more opacious saturated chroma than the Enamel materials. They support the basic colour of the tooth structure from within. The translucency of the Enamel materials has been adjusted to diffuse the dentinal substrate. Further gradations in translucency are achieved with Trans 20, Trans 30 and Opal materials.

The well-balanced and mutually complementing translucencies of the IPS Empress Direct Dentin and Enamel materials give you the power to create exceptional esthetics with accurate colour every time.

## NEW OPALESCENT SHADE

Opalescence is evident in the incisal area of natural teeth. In simple terms, this optical effect is based on the different ways in which long waves (red) and short waves (blue) of light are scattered. If a tooth is examined in incidental light it appears to have a bluish tinge, while in transmitted light this colour changes to reddish-orange.

This effect has to be imitated with the corresponding materials in the restoration of teeth.

# QUICK AND ACCURATE SHADE MATCH

Two autoclavable shade guides depict the various shades and translucency levels of the IPS Empress Direct system. As with the IPS Empress all-ceramic materials, the shade tabs are made of high quality ceramic to provide long term stability for consistent shade match over time.

The 5 levels of translucency of IPS Empress Direct					
[%]					
50					
40					
30					
20					
10		10.0			
0	Dentin	Enamel	Trans 20	Trans 30	Opalescence
	Dentin	Linamer		ITalls 50	Opalescence
	-	-	0	-	0
			-	-	



Opalescent effect



### COMPETENCE IN COMPOSITES



#### HIGH LUSTRE POLISH

IPS Empress Direct has an even distribution of filler particles which quickly and easily polish to a longlasting lustrous shine. It has similar polishing characteristics to both IPS Empress Esthetic and IPS Empress CAD.

## FLUORESCENCE OF NATURAL TEETH

Fluorescence is produced by special pigments, which absorb energy from UV light and immediately emit it as visible light.

We find these pigments in the dentin and we calibrate the IPS Empress system to produce the effect of natural fluorescence.

## SPECIAL FLOWABLE EFFECT SHADES

IPS Empress Direct Flow "Art" components ideally complement the IPS Empress Direct range of materials. They allow the specific individual characteristics of natural teeth to be reproduced. With Trans Opal, the natural opalescence of incisal edges can be reliably mimicked, while Trans 30 enables lifelike translucency to be achieved. Bleach XL mainly serves to create customized, true-to-nature characteristics such as fluorosis effects.

Whilst providing stability, the three Effect materials offer optimum surface affinity. Due to the material's pleasant consistency, restorations can be conveniently sculpted and contoured with either a spatula or brush.



Before



After Dr. Arnd Peschke, Ivoclar Vivadent AG, Liechtenstein



Fluorescent effect



Application of<br/>Trans Opal FlowFinal<br/>highDr Eduardo Mahn, Saudi Arabia

Final result after high gloss polishing



## **IPS Empress<sup>®</sup> Direct** Layer by layer to true-to-nature esthetics

With the IPS Empress Direct system you get very natural results. Due to perfectly matched Dentin and Enamel shades and calibrated translucencies, simply replace what you have taken away. Replace dentin with the corresponding Dentin shade determined by the IPS Empress Direct shade guide. Then do the same with the enamel. With IPS Empress Direct, there is no need for a "recipe".



**Step 1:** Tooth preparation.



**Step 2:** Match and replace the dentin with the appropriate Dentin shade (eg A2 Dentin).



**Step 3:** Replace the enamel with the appropriate Enamel shade (eg A2 Enamel).



**Step 4:** Finish and polish to a high lustre (eg with Astropol and Astrobrush)

# Empress<sup>®</sup> Direct



Dr Markus Lenhard, Switzerland

"There is no simpler or more efficient way to reproduce the effect of natural opalescence. The material is easy to polish and a superior high-gloss finish is achieved."





Dr Arnd Peschke, Ivoclar Vivadent AG, Liechtenstein

"This material allows the appearance of natural anterior and posterior teeth to be reliably mimicked. Its exceptional handling properties and the long working time make placing the composite in anatomical layers a real pleasure."



## **IPS Empress<sup>®</sup> Direct** The Direct Composite that simplifies your work

## RADIOPACITY [%AI]



In-house study, R&D, lvoclar Vivadent AG, Schaan (determined according to ISO 4049), February 2009 Enamel plus HRI (Micerium) b.2008004416; Esthet X HD (Dentsph) b.00808251; Filtek Supreme XT (3M Espe) b.7EC; Miris2 (Coltene) b.0156133; Venus Diamond (Heraeus Kulzer) b.010021; Vit-l-scence (Ultradent) b.B3RLN; Renamel Microfiil (Cosmedent) b.080301H; Premise (Kerr Have) b.3080533

## **INSENSITIVITY TO LIGHT [s]**



While the radiopacity of IPS Empress Direct is 350% Al, natural dentin has a radiopacity of 100% Al. This difference ensures a sound diagnosis.

As IPS Empress Direct is considerably less sensitive to light, also to operatory light, than other comparable materials, it provides adequate time to carefully sculpt the restoration.

In-house study, R&D, Ivociar Vivadent AG, Schaan (determined according to ISO 4049), February 2009 Enamel plus HRI (Micerium) b.2008004416; Esthet.X HD (Dentsph) b.0808251; Filtek Supreme XT (3MEspe) b.7EP; Venus Diamond (Heraeus Kulzer) b.010021; Vin-tesence (Uttradent) b.B3RUK; Premise (KerT Havb) b.3080533

RESTORATION WITH OPALESCENT EFFECT Dr Markus Lenhard, Switzerland



Preoperative situation: Fracture of the distal incisal edges of the central incisors



Application of Dentin material



Application of the bonding agent



Placement of the facial Enamel layer



Reconstruction of the palatal wall by means of the "finger tip technique"



Postoperative situation after 2 weeks



## The only Direct Composite that can be called Empress!

## **Delivery Forms IPS Empress Direct**

#### Syringes



#### Basic Kit

8 x 3 g syringes IPS Empress Direct 1 x A1, 1 x A2, 1 x A3 Dentin 1 x A1, 1 x A2, 1 x A3 Enamel 1 x Opal, 1 x Trans 30

Autoclavable shade guide 1 x Enamel/Translucent 1 x Dentin

IPS Empress Pad Clinical guide Refill

Dentin 1 x 3 g: A1, A2, A3, A3,5, A4, IVA5, IVA6 B1, B2 C3 D2 Bleach L, Bleach XL

Enamel 1 x 3 g: A1, A2, A3, A3,5, A4 B1, B2, B3, B4 C1,C2, C3 D2, D3 Bleach L, Bleach XL

Translucent 1 x 3 g: Trans 30 Trans 20 Trans Opal

## Cavifil



#### Basic Kit

80 x 0.2 g Cavifil IPS Empress Direct 10 x A1, 10 x A2, 10 x A3 Dentin 10 x A1, 10 x A2, 10 x A3 Enamel 10 x Opal, 10 x Trans 30

Autoclavable shade guide 1 x Enamel/Translucent 1 x Dentin

IPS Empress Pad Clinical guide

#### Refill

Dentin 10 x 0.2 g: A1, A2, A3, A3,5, A4, IVA5, IVA6 B1, B2 C3 D2 Bleach L, Bleach XL

Enamel 10 x 0.2 g: A1, A2, A3, A3,5, A4 B1, B2, B3, B4 C1,C2, C3 D2, D3 Bleach L, Bleach XL

Translucent 10 x 0.2 g: Trans 30 Trans 20 Trans Opal

## Delivery Forms IPS Empress Direct Flow "Art"



Refill

**1 x 1,8 g:** Trans 30 Trans Opal Bleach XL



This is a product from our "Composites" competence field. Products from this field are optimally coordinated with each other.



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