# **Content** Content Colutions

### Efficiency and esthetics redefined



**all** ceramic **all** you need



# More press ceramic options ...



Press ceramics have been synonymous with the ideal combination of accuracy of fit, shape and function for decades. In addition, the IPS e.max Press lithium disilicate glass-ceramic  $(LS_2)$  offers an outstanding strength of 400 MPa.

The already extensive indication range – from thin veneers (0.3 mm) and monolithic crowns to anterior and premolar bridges – has now been expanded to include hybrid abutment restorations.

With IPS e.max Press, you can fabricate such restorations in combination with a titanium base (Ti base). Two different approaches are available for this purpose:

- hybrid abutments and
- hybrid abutment crowns.

Both solutions show outstanding function, efficiency and esthetics. The durable bond to the Ti base is achieved by means of the self-curing Multilink<sup>®</sup> Hybrid Abutment luting composite.

### ... thanks to hybrid abutment restorations







#### The adequate solution for every case Generally, pressed abutment restorations can be fabricated in two ways:

• Efficient and supremely esthetic

In this case, fabricating a customized, tooth-coloured hybrid abutment and subsequently an IPS e.max all-ceramic crown is the right choice. The final outcome features a harmonious, highly esthetic appearance – due to the lifelike shade design of both the abutment and the transition area to the crown.

• Supremely efficient and esthetic

To meet these requirements, the two-in-one option is recommended: a hybrid abutment crown, which combines the abutment and the monolithic crown in one piece. Thus, innovative implant-supported restorations are fabricated highly efficiently. Intraoral cementation and the bothersome removal of excess material are a thing of the past.



#### The highlights

- Pressed hybrid abutment solutions from your laboratory
- High, lasting esthetics, also in cases of gingiva recession, thanks to tooth-coloured hybrid abutments
- Hybrid abutment crowns (two-in-one) for function, efficiency and access to the screw at any time
- Excellent bond strength and esthetics between LS<sub>2</sub> and the Ti base due to Multilink<sup>®</sup> Hybrid Abutment

### Hybrid abutments for maximum esthetics



Hybrid abutments are individually pressed  $LS_2$  abutments which are luted to a Ti base. The shape, emergence profile and esthetic properties of such abutments can be ideally adjusted to the clinical situation.

#### Individualized esthetics

With  $LS_2$  glass-ceramics, the esthetic possibilities are virtually limitless, particularly in the anterior region. Given the material's fluorescence in conjunction with individual characterizations, a lifelike appearance is achieved near the root and the transition area to the crown. With the preparation margin of the crown located on the gingiva level, the geometry of the hybrid abutment allows for an easy integration of the restoration. Excess cementation material can thus be easily removed.

#### Flexibility due to laboratory fabrication

The pressed  $LS_2$  abutment is extraorally luted to a Ti base with Multilink Hybrid Abutment, then screwed into place in

the oral cavity and finally provided with a permanent IPS e.max crown. As the hybrid abutment is conveniently fabricated in the lab, the process is time-saving and flexible.

**New possibilities for high-quality restorations** IPS e.max Press hybrid abutments are a new alternative to prefabricated or customized abutments made of other materials. This innovative solution is ideally suitable for durable, highly esthetic restorations also in patients who suffer from gingiva recession.







and IPS e.max crown





IPS e.max Press hybrid abutment Screwed-in hybrid abutment

Crown luted to hybrid abutment

Dr Ronny Watzke/Jürgen Seger, Ivoclar Vivadent, Liechtenstein

# Hybrid abutment crowns for an efficient two-in-one solution



A hybrid abutment crown is an abutment and a monolithic crown in one. This is an efficient two-in-one solution made of lithium disilicate (LS<sub>2</sub>), which is directly luted to a Ti base.

#### Efficient fabrication: two in one

 $LS_2$  glass-ceramics provide strength, durability and efficiency, particularly in the posterior area. Moreover, the material offers the well-known esthetic properties. Restorations can furthermore be characterized with IPS e.max Ceram stains.

#### Luted extraorally, screwed in intraorally

The monolithically pressed hybrid abutment crown is reliably luted to the Ti base by means of Multilink Hybrid Abutment. Then, the restoration is screwed onto the implant – in one piece. Thus, the bothersome task of excess removal is a thing of the past. Subsequently, the screw access channel is sealed with a composite material (e.g. Tetric EvoCeram<sup>®</sup>). If required, the screw can be accessed at any time, which affords the dental team clincial flexibility.

### New possibilities for economically efficient restorations

Hybrid abutment crowns made of IPS e.max Press are a new, economically attractive alternative to conventional implant-supported restorations, particularly for the posterior area, where strength, durability and convenient clinical handling matter.











Contoured emergence profile

IPS e.max Press hybrid abutment crown

Screwing in the hybrid abutment crown

vn Sealing the screw channel with composite material

Seated hybrid abutment crown

Dr Ronny Watzke/Franz Perkon, Ivoclar Vivadent, Liechtenstein

#### Precision and excellent esthetic integration



IPS e.max Press abutments are ideally suited to be used in the field of esthetic implant dentistry. Instead of adding layering ceramic to abutments, pressed ceramic objects are conventionally fabricated and luted to titanium bases. With these abutment solutions, I can achieve a high level of precision, excellent esthetic integration and high fracture strength. In five years of clinical use, not a single failure has occurred.

#### August Bruguera, dental technician, Spain



Clinician: Oriol Llena, Spain

#### Creating optimized emergence profiles



I have been successfully using lithium disilicate on titanium abutments for some years now. This material allows me to create an optimized emergence profile quickly and easily, and this contributes to the beautiful appearance of my IPS e.max all-ceramic restorations.

### Dr Christian Coachman, dentist and dental technician, Brazil



Clinician: Dr Mauro Fradeani, Italy Dr Eric van Dooren, Belgium

### Biocompatibility and ideal bond





Dr Ronny Watzke/Franz Perkon, Ivoclar Vivadent, Liechtenstein

#### Good biocompatibility

An optimum biocompatibility is decisive for a durable and successful material used in conjunction with abutments and implant-supported restorations. Numerous studies carried out over many years confirm the good biocompatibility of IPS e.max Press (LS<sub>2</sub>) glass-ceramic with the oral soft tissue.

"[...] regarding the periodontal parameters, no significant differences (P > 0.05, Wilcoxon rank sum test) were found when pocket depth, bleeding on probing and tooth mobility were compared between test and control teeth."

S. Wolfart, S. Eschbach, S. Scherrer, M. Kern (2009). "Clinical outcome of three-unit lithium-disilicate glass-ceramic fixed dental prostheses: up to 8 years results." Dental Materials 25(9).

**Cementation: an integral part of the process** The results of bond strength tests confirm the high quality of the adhesive bond between IPS e.max Press ( $LS_2$ ) and Ti bases. The quality of the bond is not compromised if IPS e.max Press restorations are sterilized according to the respective guidelines, as impressively shown by the comparison of non-sterilized and sterilized test specimens.



Shear bond strength of LS<sub>2</sub> on Ti non-sterilized vs sterilized specimens

Source: R&D Ivoclar Vivadent, Liechtenstein, 2011

## Seating and aftercare



#### **IPS e.max® Abutment Solutions CEM Kit**

The IPS e.max Abutment Solutions Cementation Kit offers an ideally coordinated range of products for the cementation of hybrid abutments made of  $LS_2$  and  $ZrO_2$  to Ti bases.

It contains all the components that are required to prepare and perform a clinical try-in (e.g. Virtual® Extra Light Body Fast Set) and all the materials that are needed to permanently cement restorations to Ti bases (e.g. Multilink Hybrid Abutment). The self-curing luting composite Multilink Hybrid Abutment has been specifically developed for the permanent cementation of implant-supported restorations. In conjunction with the Monobond® Plus primer, this material yields excellent bonding values.



#### **Implant Care Program**

Implant Care comprises a coordinated range of products for the professional care of patients during the different phases of an implant treatment and the lifelong aftercare.

Products for professional cleaning (e.g. Proxyt<sup>®</sup>) and bacteria control (e.g. Cervitec<sup>®</sup>) contribute to maintaining the quality of implant-retained restorations in the long-term. As a result, implant-supported restorations made of IPS e.max Press are treated and maintained in an optimum fashion, with regard to both function and esthetics.

### **Fixed Prosthetics**

IPS e.max<sup>®</sup> 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:

### **Programat**<sup>®</sup>

Press and ceramic furnaces for demanding requirements



Packed with proven technology and advanced innovations

- Outstanding press and firing results
- Ideally coordinated with the ceramic materials of Ivoclar Vivadent
- Easy operation

### Multilink<sup>®</sup> Automix

The adhesive cementation system



A strong bond, proven performance

- Strong hold both dual and self-curing
- Universal suitable for silicate and oxide ceramics as well as metal
- Clinically proven numerous long-term studies

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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