



update



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NEWS FROM THE DENTAL WORLD BY IVOCCLAR VIVADENT

Editorial



Dear Customer

The new Phonares tooth line is the first highlight in the field of Implant Esthetics. These teeth are made of a new nano-optimized composite material that is highly resistant to wear. In addition, these teeth are also more aesthetic and wider than conventional teeth. All these properties add new aspects to removable denture prosthetics. As a result, these teeth are particularly suitable for the fabrication of highly aesthetic, quality implant-retained dentures.

Other highlights can be found in the Composites section: For example, the latest results of a study on the nano-optimized restorative composite Tetric EvoCeram and on the self-etching adhesive AdheSE One are presented. In addition, you will find more detailed information about the self-etching luting composite Multilink Automix. I would like to point out a final highlight in the All-Ceramics section: The lithium disilicate ceramics IPS e.max Press and IPS e.max CAD will be offered in a high translucency level (HT) in future to complement the IPS e.max system.

Find out more about the new products which will be available to support you in your practice and laboratory work in future in this edition of Update – and visit us at IDS 2009. We are looking forward to discussing the future of quality-driven aesthetic dentistry with you.

Sincerely

Christian Brutzer
Chief Sales Officer
Ivoclar Vivadent AG

Aesthetics re-defined The new SR Phonares® tooth lines revolutionize the aesthetics of denture teeth



The future is Phonares: Ivoclar Vivadent presents its new nano-hybrid composite (NHC)-based tooth lines, which outshine all existing denture teeth as far as aesthetics are concerned. The new tooth moulds are characterized by a unique surface texture which enhances the life-like appearance of the teeth. Another special feature of these spectacular, aesthetic tooth moulds are their perfectly adjusted proximal surfaces which ensure an optimum level of "white aesthetics" due to the special "Set & Fit" design. The harmonious proportions of translucency, opalescence and fluorescence make these teeth particularly attractive.



The new SR Phonares NHC anterior tooth line

Aesthetic anterior teeth for everybody

The SR Phonares anterior tooth line is based on a design that takes age- and type-related characteristics into account. The dentist may choose between youthful, universal and mature as well as between soft and bold tooth moulds. The SR Phonares anterior tooth line comprises 18 maxillary moulds and 4 mandibular moulds in an elaborate 4-layer design. They are available in a wide variety of shades encompassing 16 A-D and 4 Bleach shades. The posterior tooth lines are also available in these shades.

Functional posterior tooth design

Two different designs – SR Phonares Typ NHC and SR Phonares Lingual NHC – allow two different set-up methods to be used. While the SR Phonares Typ NHC are truly universal moulds that can be utilized in partial, complete and hybrid denture prosthetics, the SR Phonares Lingual NHC line is particularly suitable for use in the fabrication of implant-supported, removable dentures. Both posterior tooth lines are offered in three different sets each for the upper and lower jaw. The Phonares tooth lines will be available as from July 2009 in selected countries.

The new SR Phonares Type NHC and SR Phonares Lingual NHC posterior tooth lines



Implant Care

Professional oral health care management for implants



Implant Care is a coordinated care program offered by Ivoclar Vivadent for the professional care of patients during the various implant treatment phases and throughout the rest of their lives.

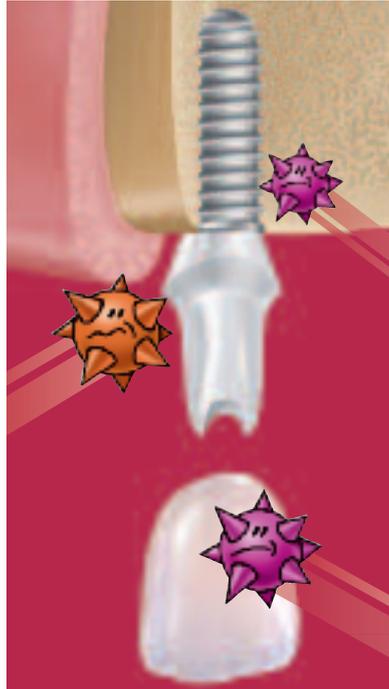
Implant Care comprises products and services which meet the specific long-term requirements of implant patients. The complex structures of the restoration and the sensitive tissues both need to be taken care of.

Regular care in the dental practice

The manual dexterity and/or compliance of the patients is often not sufficient to look after sensitive areas with the required precision. The regular application of suitable products in the dental practice is indispensable in order to ensure the long-term success of an implant restoration.

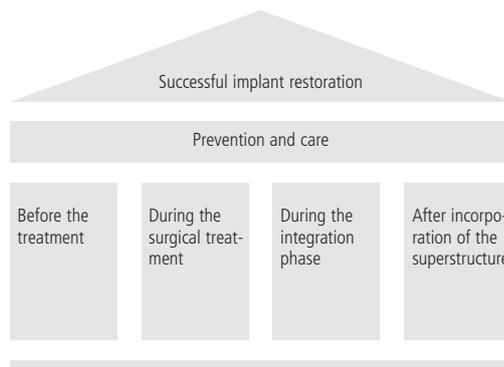
Efficient care products

Implant Care focuses on gentle and effective products to protect and preserve the sensitive peri-implant tissue. Superstructures, implant-borne or removable dentures as well as natural teeth should be treated in an optimal way to preserve their functionality and aesthetic appearance. The products for professional teeth-cleaning and bacteria control



form a coordinated program to maintain the long-term quality of high-quality implant restorations. Implant Care products can be easily integrated into the treatment sequence and the practice routine. Implant Care includes products which specifically meet the patients' needs in terms of oral health care. Such products form an integral part of an oral health care management program for implants which is based on well-documented evidence.

Strategies for the care of implants



Gentle care of the implant restoration and the natural teeth with the fine Proxylt paste



Targeted application of the colourless chlorhexidine-containing protective varnish Cervitec Plus along the margins of crowns



Interdental care with Cervitec gel, which contains chlorhexidine and fluoride



Implant restoration, optimally treated according to the Implant Care concept

Interesting facts about the light probe

Did you know that the light intensity decreases and the curing time needs to be doubled with increasing distance between the light probe and the composite to be cured?



The larger the distance between the light emission window and the composite restoration, the larger is the surface that is irradiated. The energy emitted by the curing light is spread over a larger surface, but the light intensity decreases accordingly – which might result in insufficiently cured restorations. Particularly in the case of posterior restorations, the distance between the cusp and the bottom of the cavity may already be 6 mm or more. Therefore, it is all the more important to always polymerize with the light probe placed directly on the tooth surface.

Tip Double the curing time as follows at the following distances:

- standard light probe: approx. 9 mm (new bluephase)
- turbo light probe: approx. 5 mm
- LED curing lights without light probe: already at approx. 2 to 4 mm



* Not registered trademarks of Ivoclar Vivadent AG

Due to the light-scattering characteristics of the parallel-walled 10-mm light probe, bluephase provides an outstandingly high light intensity even in critical situations.

Contour Strip matrix bands

For the creation of optimum anterior and Class-V restorations



The pre-formed transparent matrix strip especially designed for the cervical region simplifies the placement of direct anterior and Class-V restorations.

The unique feature of Contour Strip matrix bands is their typical U shape, which allows perfect gingival margins to be created in a controlled fashion without excess or shortage of material. In the aesthetic adjustment of teeth with composite, e.g. the closure of diastemas, the procedure is rendered much easier by using Contour Strip.



The individually perforated Contour Strip matrix bands are available in a dispenser box containing 100 strips

Top marks

AdheSE® One in the VivaPen® receives excellent ratings



A survey conducted by Ivoclar Vivadent shows that the users of the self-etching

bonding agent AdheSE One in the VivaPen delivery form are very satisfied with the product.

The overwhelming majority of the participants appreciated the user-friendly handling of the VivaPen delivery form which allows the adhesive to be applied directly to the restoration in a time-saving and economical manner. The verdict of the participants as regards AdheSE One was also extremely positive: They said that the adhesive established an extremely reliable bond and showed good storage stability at room temperature. Moreover, the fact that post-operative sensitivities rarely occur in conjunction with AdheSE One was also very positively rated. The company obtained valuable suggestions from the more than 1000 questionnaires returned, which will be considered in the further development of AdheSE One in the VivaPen delivery form.



The VivaPen enjoys great popularity

Check the bill

A comparison of two LED lights in different price segments



The purchase costs are not the only factor that influences the profitability of LED lights. Additional and follow-up costs must also be considered. A detailed comparison will reveal which one is the more economical light.

Sample calculation

To calculate the break-even point, the polymerization time and 180 euro per practice hour must be added to the purchase costs of, for example, approx. 700 euro for light 1 and 1,200 euro for light 2.

As the costs arising from polymerization vary depending on the treatment, up to three minutes per restoration can be saved with a higher light intensity according to a CRA calculation.¹ This advantage, however, only applies if the output of the polymerization light complies with the light intensity stated by the manufacturer.^{2, 3}

		Light 1	Light 2
Purchase costs		700 €	1,200 €
Intensity stated by manufacturer		400 mW/cm ²	1,200 mW/cm ²
Composite restorations per year		2,000 composite restorations per year	
Practice costs per hour		180 €	
Curing time		5 min.	2 min.
Break-even (Purchase costs and working time)	55.6 restorations	1,533 €	1,533 €
Overall costs 1st year (Purchase costs and working time)	2,000 restorations	30,700 €	13,200 €

¹ CRA cost calculation (May 2000)

² C.-P. Ernst et al: Feldtest zur Lichtemissionsleistung von Polymerisationsgeräten in zahnärztlichen Praxen, Z 60 (2006) 9, 466–471

³ ADA, American Dental Association: Professional Product Review, Vol. 1, Issue 2, Autumn 2006

Conclusion: The amount of 17,500 euro per year can be saved if a high-power light is used. Therefore, light 1 is profitable after the placement of just 60 restorations.

Tetric EvoCeram®

Three-year results of a clinical study



Tetric EvoCeram is the proven nano-optimized mouldable composite from Ivoclar Vivadent. The recently published three-year results of the clinical study conducted by Prof. Dr Jan van Dijken at the University of Umeå in Sweden confirm the great clinical success of the product.

In this study, 40 restorations, 20 in molars and 20 in premolars, were placed, of which 8 were class-I and 32 class-II restorations.

After 12 and 24 months, 39 restorations were evaluated, and after 36 months, 38 were checked (the restorations of one and two patients, respectively, could not be evaluated). The following overview shows the initial values as well as the values after 12, 24 and 36 months in the mouth. The classification is made according to the modified Ryge criteria:

A (Alpha) = optimum
B (Bravo) = acceptable
C (Charlie) = insufficient
D (Delta) = has been replaced

The results show that Tetric EvoCeram restorations display an outstanding surface and margin quality. As a result of these exceptional qualities as well as the properties that are particularly valued by users, such as the good and quickly achieved polishing results, the lasting lustre of the material, the low shrinking values and the good chameleon effect, Tetric EvoCeram offers everything that is necessary for achieving successful clinical results.



Tetric EvoCeram: the nano-hybrid composite

Results:	Baseline	1 year	2 years	3 years
Marginal adaptation	100%A	87%A, 13%B	87%A, 10%B, 3%D	79%A, 18%B, 3%D
Marginal discolouration	100%A	97%A, 3%B	95%A, 5%B	86%A, 14%B
Anatomical shape	95%A, 5%B	92%A, 8%B	92%A, 5%B, 3%D	94%A, 3%B, 3%D
Secondary caries	100%A	97%A, 3%C	94%A, 6%C2)	92%A, 8%C
Surface roughness	100%A	97%A, 3%B	97%A, 3%B	100%A
Post-operative sensitivities	100%A	100%A	100%A	100%A
Survival rate	100%A	97%A, 3%C	95%A, 5%C	92%A, 8%C*

Source: Prof. JWV van Dijken, Uni Umeå, 2006, The Clinical Performance of TEX2 in Class I, Class II Cavities

* One restoration had to be replaced after 12 months due to root caries. After 24 months another filling failed and after 36 months, two additional molar restorations fractured and displayed secondary caries. In both cases, however, Tetric EvoCeram was not the cause.

IPS e.max

A system for all indications



The high-translucency (HT) lithium disilicate glass-ceramic materials are the latest addition to the IPS e.max range of products. Below is a brief account of how the IPS e.max System has evolved over the years.



IPS e.max Press HT and IPS e.max CAD HT round off the IPS e.max range of products

2005

The IPS e.max All-Ceramic System is composed of high-strength, aesthetic products which can be used for both the press and the CAD/CAM technique. At this early stage, the system comprises the lithium disilicate ceramics IPS e.max Press and IPS e.max CAD as well as the zirconium oxide ceramic IPS e.max ZirCAD, all of which are used for the fabrication of frameworks. IPS e.max ZirPress, which is suitable for use in the press-on technique, also forms part of this system. Only one layering ceramic is required to veneer all these lithium disilicate and oxide ceramic-based framework materials: IPS e.max Ceram. The ceramic imparts an exceptional aesthetic character to the completed restorations, while properties such as wear and lustre remain consistent throughout the different parts.

2007

A new, translucent version of IPS e.max Press and CAD (LT) is introduced to the market. This version allows full-contour crowns and anterior bridges to be manufactured in an efficient way. In addition, it allows the restorations to be conventionally cemented, which adds to the appeal of IPS e.max.

The fabrication of lithium disilicate restorations using the staining technique is just another attractive aesthetic alternative – not only to full-cast crowns. Due to the material's high strength of 360 – 400 MPa, which is entirely sufficient for single tooth crowns, it offers an alternative to restorations with more expensive, veneered zirconium-oxide crowns. IPS e.max ZirCAD is mainly employed in the fabrication of long-span bridges, which require very high strength.

2009 news

The lithium disilicate ceramics IPS e.max Press HT and CAD HT (High Translucency) are introduced to round off the IPS e.max System. Due to their high strength, the materials can be used to fabricate minimally invasive restorations such as pressed veneers of approx. 0.3 mm thickness or occlusal veneers ("tabletops"). Inlays only have to be 1 mm thick if an adhesive cementation protocol is used. The translucent material is either used in conjunction with the efficient staining technique or the highly aesthetic cut-back technique. The IPS e.max Press and CAD LT (Low Translucency) and HT materials are available in 16 A-D shades and 4 Bleach shades – both for the press and the CAD/CAM technique.

IPS e.max ZirCAD Colour Blocks

Now colour comes into play



IPS e.max ZirCAD Colour Blocks are homogeneously shaded zirconium oxide blocks

which provide an alternative to the white blocks that need to be stained with the IPS e.max ZirCAD colouring liquids. Due to the choice between shaded blocks or white blocks and colouring liquids, dental technicians are able to employ various different techniques in the fabrication of zirconium oxide-based restorations.

Coordinated shades

The shade range of the IPS e.max Colour Blocks is based on the shading of the IPS e.max Press and CAD lithium disilicate glass-ceramics. The coloured blocks allow you to achieve very aesthetic results – particularly when using a combination of glass-ceramic and oxide ceramic materials. Highly aesthetic results can also be achieved, if the colour blocks are used for the fabrication of conventional, zirconium oxide-based restorations, zirconium oxide-based primary crowns or implant superstructures.

In addition to the white block (MO 0), IPS e.max ZirCAD Colour Blocks in two different shades (MO 1 and MO 2) as well as seven sizes are available. They are processed in the inLab System from Sirona.

C13 Colour Blocks:

Small blocks with a big effect

Clinicians for whom optimum utilization of the block is essential when milling small copings may now use the even smaller IPS e.max ZirCAD Colour Blocks in the shades MO 0, MO 1 and MO 2: the C13 blocks.



IPS e.max ZirCAD Colour Blocks: Pre-shaded zirconium oxide blocks

IPS® AcrylCAD Blocks

After all, wax isn't colourless either



IPS AcrylCAD blocks can be used instead of modelling wax for the automated fabrication of work patterns such as frameworks, full-contour restorations and over-structures.

The blocks are made of a material that demonstrates high torsional stiffness and outstanding dimensional accuracy, which allows an accurate check of the fit in the mouth. The transparent blue colour provides an optimum contrast to the model or

tooth structure. The pattern is either invested and cast as an alloy framework or pressed to full contour with ceramics (e.g. IPS e.max Press). IPS AcrylCAD blocks are also designed for use with the press-on-metal and press-on-zirconia technique. The milled object is waxed onto the framework and reproduced in ceramics (e.g. IPS e.max ZirPress or IPS InLine PoM).

The blocks are available in the size B40L (15.4 × 19 × 39 mm). The Sirona Starter Set with a modified tank is required to process these blocks.



Coloured IPS AcrylCAD blocks: an alternative to traditional modelling wax

IPS® Contrast Spray Chairside

The second generation



The new generation of the IPS Contrast Spray Chairside is now available with lemon flavour and in the colours blue and cream.

No matter which one is more to your taste, both colours show the same contrast properties during scanning. The IPS Contrast Spray Chairside is your ideal partner for the creation of your optical images for CAD/CAM restorations. The new, flat nozzle tip ensures that the preparation can be optimally accessed in the oral cavity. A short burst with the spray balances the optical properties of dentin and enamel and thus allows an optimal scan to be taken.

Hygiene protection as a hallmark

The exchangeable nozzles, which have been specifically developed for single use, are a big plus. Because they are used only once, no disinfection of the nozzle is necessary and cross-contamination is excluded.



The IPS Contrast Spray Chairside with single-use nozzles, for the benefit of the patient

Larger investment ring system

For increased versatility and efficiency



Dental laboratories will be happy to hear that, in addition to the IPS® Investment Ring Systems 100g and 200g, Ivoclar Vivadent now offers a new, larger investment ring for pressing bridges with up to 10 units. Alternatively, to save time, several smaller restorations can also be pressed in one working step.

You can press both zirconium oxide frameworks (e.g. IPS e.max ZirCAD) and ceramic alloy frameworks. Depending on the framework material, IPS e.max ZirPress (Press-on-Zirconia) or IPS InLine PoM (Press-on-Metal) ingots are used. The cylinder-shaped sprue former optimizes the handling and considerably facilitates the spruing of wide-span restorations. The new investment ring with a diameter of 65 mm is also coordinated with the press furnaces from Ivoclar Vivadent.



The new IPS Investment Ring System 300g



The cylinder-shaped sprue former facilitates the process

A tried-and-tested material has been further optimized



Multilink® Automix luting composite



Tried-and-tested materials should not be modified – just improved. Therefore, an

improved version of the self-curing luting composite Multilink Automix has now been made available.

Due to the new formulation of Multilink, excess material is much easier to remove with a scaler. Excess amounts of Multilink are light-activated for two to four seconds per quarter surface, so that they assume a gel-like consistency. In this state, the composite removes easily.

Multilink in the automix syringe is characterized by its high adhesive strength as well as by its ability to mediate a durable bond. This luting composite, which can be used for a wide variety of applications, is offered in the versions opaque, yellow and transparent.



Multilink Automix featuring a new formulation

Dental Advisor Top Products 2009

from Ivoclar Vivadent



Optimum compatibility of the products that are used in a treatment provides optimum pre-requisites for the creation of durable and aesthetic restorations. Various products from the Ivoclar Vivadent range have received the Dental Advisor's Top Product 2009 recognition.

The renowned industry journal, The Dental Advisor, grants Top Product awards in the different product categories every year. In the category Competence in Composites, the following Ivoclar Vivadent products came off as winners this year*: Tetric EvoCeram as Top Composite, the new bluephase as Top Light-Curing

Unit and the VivaPen as Top Dispensing System. In the category of Competence in All-Ceramics, IPS e.max received an award as Top Posterior Ceramic, IPS Empress as Top Anterior Ceramic and Multilink Automix as Top Adhesive Resin Cement.

* The Dental Advisor, Vol. 26, no. 1, January 2009



Always on top: Ivoclar Vivadent at IDS 2009

On the 24th of March IDS will open its gates in Cologne once again.

We invite you to take a closer look at the product innovations presented in this issue of Update at the show. In addition, experts will present topics that relate to the dental practice and provide useful tips on the Ivoclar Vivadent live stage.

Visit us in Hall 11.3
at the new location: Stand A15–C39.
We are looking forward to meeting you!

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