



PANADENT

THE NEXT GENERATION

Dear Colleague,

In this edition of VITA Info I was delighted to look back on the high level of activities witnessed since joining Panadent last January.

Having spent the last 35 years in the dental industry, I am still amazed at the enthusiasm that surrounds the industry and profession alike. At Panadent, 2005 will be remembered as a vintage year for a variety of product innovations: the superb VITA new VM range of porcelains, the VITA In-Ceram 2000 YZ CUBES often referred to as "ceramic steel" and the inEos scanner, the latest addition to inLab CAD/CAM system.

In 2006 we'll be looking at establishing the InviZion brand name and launch our specially designed matrix in association with the increasingly popular VITA PHYSIODENS teeth.

As we all ponder what effect "Options for Change" might have on our future one thing will remain certain, patients will still need high quality, aesthetic dentistry.

Their demands will drive the business that you as professionals and we as manufacturers are so committed to and will ensure that we all work together on product and technique innovations designed to meet these ever increasing expectations.

Doug White,
Sales Manager Panadent

VITA INFO 6.05

Wishing you a **V**ery **M**erry Christmas
and a Happy New Year



From all of us at **PANADENT**

EVENTS

Dental Mission – Tristan da Cunha 2005



■ The **DUNDEE DENTAL TEAM** completed their 10th successful visit to the remotest island in the world to provide basic dental treatment for the islanders of Tristan da Cunha (South Atlantic).

The team travel the 8,000 miles from Dundee by plane, ship and finally helicopter to reach the remote island which lies

1,600 miles west of south Africa. We are at sea for nearly 6 days before sighting the lovely island. The Dental Team (Dentist Dr. Christopher Southwick and Technician Bob Carse) are indebted to the many Dental Companies who support the team by providing „goodies“ for the children (and adults) which has a two fold benefit in that it encourages the patients to attend for treatment and also „makes dentistry a bit more fun“.

Thanks to the gift of a big toy dog from Dominique Gigante of Panadent we ran a „name the dog competition“ for the School children and as you can see the happy winner was Rachel Green.

The Dental Team would like to express their sincere thanks to all the companies and individuals who support the Dental Mission to Tristan.

VITA Calendar

■ The **2006 VITA** calendar is out! For your Free charge copy, **Please call Panadent 01689 88 17 88**



A NEW CROWN IS BORN!

The Dawning of inVizion



PANADENT has recently launched the InVizion concept at a recent meeting, which was attended by more than 30 dental laboratories. Three components form the basis of the internationally successful InVizion brand name

- 1) Frameworks milled using inLab's CAD/CAM system
- 2) High strength "ceramic steel" framework in Yttrium stabilized Zirconia (flexural strength equal to metal)
- 3) Ceramic layering with VITA's VM9 fine structure porcelain

Substructures are no longer white but tooth coloured to match the 5 values (brightness) Sectors in the VITA SYSTEM 3D-MASTER shade guide.

Nigel Malleeson, Panadent's Products Director stated: InVizion has more than 7 years of successful restorations behind it, giving confidence and assurance for the clinician, technician and most importantly complete satisfaction to the Patient.

A national advertising campaign, road shows and a variety of promotion materials will be made available to support the labs that can offer InVizion.



"InVizion restoration" courtesy of Edward A. McLaren DDS

To the effect, the new inLab InVizion group was recently set up. Marc Oborn, the inLab InVizion Group's coordinator who chaired the first meeting said:

"Zirconia metal free crowns seem set to become the restoration of choice for many patients, offering the combined advantages of metal reinforced strength with the aesthetics of metal free. The fit of InVizion crowns is superb and with the usually complex framework manufacturing process being undertaken by the inLab system, my time is now more efficiently spent on creating beautiful ceramics with VITAVM9. Just ask any inLab InVizion Group Member about InVizion can enhance any dental laboratory or dental practice."

For more details including a list of participating InVizion laboratories request your inVizion leaflet ref:

0905 plus VITA brochures 1163E & 1192

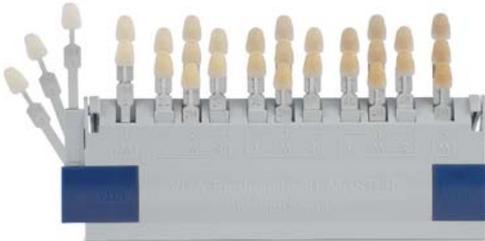
VITA BLEACHED SHADE GUIDE & VITA EASYSHADE

Innovations for tooth shade determination



VITA Bleached Shade Guide

■ **THE AESTHETIC REQUIREMENTS** in dentistry are increasing constantly. Two innovative components of VITA SYSTEM 3D-MASTER open new dimensions of tooth shade determination and simultaneously ensure reliable reproduction: the VITA Bleached Shade Guide and the digital tooth shade measuring system VITA Easyshade.



VITA SYSTEM 3D-MASTER Toothguide with VITA Bleached Shade Guide

The trend towards brilliant white teeth is gaining more and more significance. Consequently, the VITA Toothguide with its 26 VITA SYSTEM 3D-MASTER shades was expanded to include a Bleached Shade Guide to cover the artificial tooth shade (group 0). It can be easily attached to the Toothguide and simplifies planning and controlling the bleaching procedure. The VITA SYSTEM 3D-MASTER also enables the user to reproduce artificial tooth shades since the BLEACHED shades were added to the product range of the VITABLOCKS, veneering materials and artificial teeth.

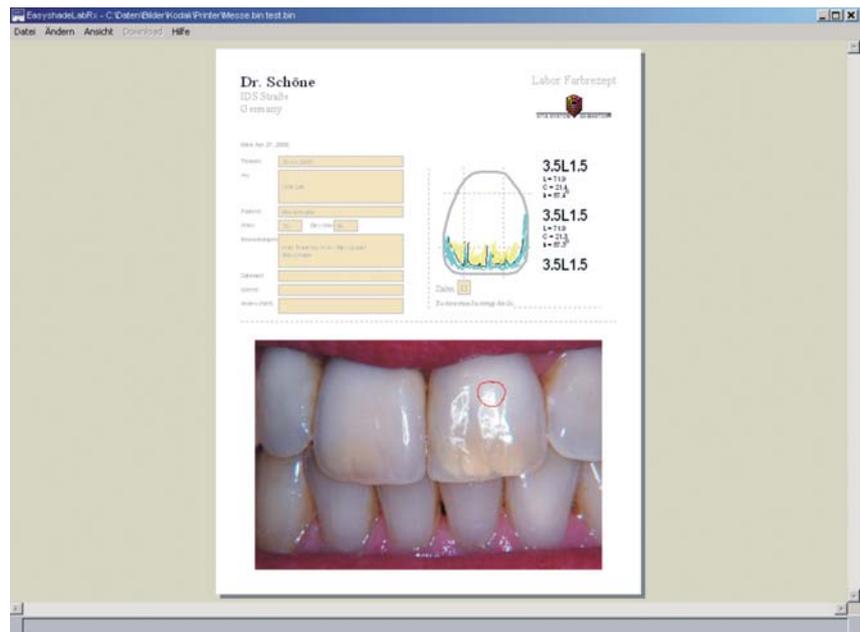
For digital shade determination VITA developed the VITA Easyshade system. It is used to determine the exact shade

independent of lighting conditions. The new BLEACHED shades were also integrated in this system. The specific tooth shade is displayed in one of the 26 VITA SYSTEM 3D-MASTER shades and the three BLEACHED shades. The 16 VITAPAN classical shades are available as an alternative.

New software for VITA Easyshade allows to connect the system with a notebook or a PC (not included in the delivery). After shade taking a measurement protocol, the so-called shade formula is printed out. It documents patient data and the respective tooth situation by means of a digital photo. An additional feature allows to draw in anomalies. The shade formula can then

be sent as a copy or by e-mail – this will optimize the exchange of data between dentists and technicians and offer reliability in the reproduction process. The software includes an extended range of languages: German, English, French, Portuguese, Spanish and Italian. Up to nine measurements of the tooth shade can be stored which are also available when returning from standby mode.

VITA Easyshade and the Bleached Shade Guide are ideal complements to the VITA SYSTEM 3D-MASTER tooth guide, the new generation of shade determination systems, to achieve best possible results and absolute patient satisfaction.



Shade formula of VITA Easyshade

VITA TRIOSTAT

Compact tooth assortment to create additional value

■ **PROSTHETIC RESTORATIONS** which are accepted by patients, dentists and dental technicians excel by quality in aesthetics and function. VITA Zahnfabrik has been manufacturing artificial teeth for eight decades already and possesses the necessary know-how to satisfy the standards of users and patients alike.

The target of the fabrication of a prosthetic restoration is to achieve a natural physiological appearance and a facial expression true to nature. This entails the obligation for dental technicians to fabricate restorations which can hardly be distinguished from natural teeth. Accordingly, the fabrication of a functional and aesthetic restoration is extremely difficult. The teeth from the compact VITA TRIOSTAT assortment fulfill all requirements made on such restorations.

The VITA TRIOSTAT tooth is suited for practically all indications. The three sets of posterior teeth feature functional occlusal relief and can be integrated quickly and safely in all standard setup concepts. The 20 upper anterior sets available in the classic ovoid, triangular, rectangular and square mould



VITA TRIOSTAT

groups offer numerous selection options for individual setups. The nine lower anterior sets fulfill the varying requirements for lower setups.

Smooth transitions towards the tooth body, distinctive necks and a trans-

lucent incisal area are characteristic features of the VITA TRIOSTAT three-layer tooth. The surface luster contributes to the natural appearance and vividness. VITA SYSTEM 3D-MASTER guarantees the high quality of the shades of the tooth assortment. In order to limit the selection of shades and still cover a wide range of shades, VITA TRIOSTAT teeth are available in the 15 most common shades of VITA SYSTEM 3D-MASTER.

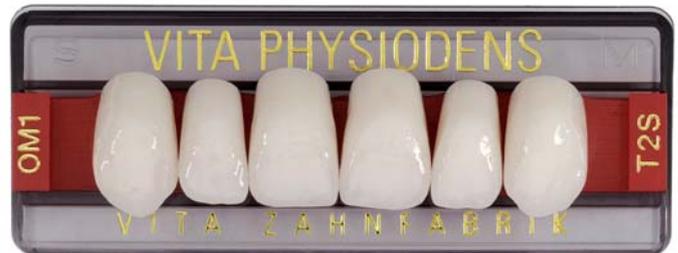
In addition to the function, quality and aesthetics, the aspect of economic efficiency is a decisive factor for the selection of a tooth assortment. VITA TRIOSTAT teeth convince by their excellent price-performance ratio: good quality at favorable prices. Dental technicians are able to achieve good results with reduced amount of work and thus create additional value.



20 sets of upper 9 sets of lower anterior teeth and 3 sets of posterior teeth

□ VITA PHYSIODENS

Premium tooth also available in BLEACHED shades



VITA PHYSIODENS anteriors in the new BLEACHED shades

■ **THOSE WHO ATTACH** great importance to individuality and top precision of full and partial dentures will select VITA PHYSIODENS. Shape and size of the premium acrylic tooth are very similar to those of natural teeth and cover a wide indication range. To be able to select the perfect shade for any specific indication, the VITA PHYSIODENS tooth assortment is available in the 26 shades of VITA SYSTEM 3D-MASTER and in 15 VITAPAN classical shades.

Additionally, VITA expanded the range of shades for this product by taking up the trend towards brilliant white teeth obtained by bleaching. This year 18 moulds in the VITA SYSTEM 3D-MASTER BLEACHED shades OM1 and OM3 have been added to the VITA PHYSIODENS tooth assortment to ensure perfect adaptation to bleached teeth. This way increased individualization of demanding restorations is possible.

The VITA PHYSIODENS anteriors excel by smooth transitions from the tooth crown towards the tooth neck which support natural design of papillae and gingiva. The complex manual layering technique by VITA, individual characterization and the vivid surface structure add a natural look to these anteriors. Just like in natural teeth, the cuspal inclination varies from tooth to tooth and the wide occlusal reliefs guarantee harmonious transition to the adjacent tooth. These posteriors allow uniform, spot-like contacts and are suitable for almost all set-up methods.



VITA PHYSIODENS are suitable for almost all set-up methods.

The perfect luminous reflectance behavior of the VITA PHYSIODENS tooth is based on its multi-layer structure. The natural labial surface structure and the corporeal anterior and posterior teeth contribute to the preservation of natural physiognomy, especially in geriatric dentistry.

VITA PHYSIODENS enables dental laboratories to prepare perfect functional and aesthetically appealing dental restorations.

IT'S ONLY NATURAL! PHYSIODENS –

New Denture Teeth from VITA

■ Panadent, together with **DR. STUART MORGANSTEIN**, has developed the perfect prescription method for VITA PHYSIODENS teeth. The approach is ideal for these new teeth because of their unique anatomical profiling which also allows for aesthetic vitality and better occlusal stability.

Dr. S. Morganstein took the unique anatomical features of PHYSIODENS teeth and applied his research concept of multiple dimensional tooth shape, using the patient's Facial, Profile and Plan views as well as the inter-pupillary distance to create a matrix that allows for fast, easy and precise selection of

appropriate teeth in either the surgery or laboratory.

Dr. Morganstein first started working on the concept in 2001. He says, "selecting the correct shape and size of teeth is made easier by observing and recording the shape of the patients face in three dimensions using the matrix. Add the inter-pupillary distance as a guide to the correct size of the teeth and accurate mould determination is easy and the results using the VITA PHYSIODENS teeth results are superb."

VITA PHYSIODENS teeth are a new generation of 5 layered acrylic teeth.

Wear abrasion ("Abrasion resistance of artificial teeth" Müller et al Quintessence Zahntechnik 29 ed 4) is akin to nature, as are aesthetics vitality and fit.

The unique 4 DIMENSIONAL prescription approach (according to Dr. S. Morganstein) is perfect for complete dentures, partials and long term temporary prostheses – including chrome bases, where even in thin section metal is masked without affecting tooth aesthetics, shade match and translucency giving a natural appearance without any annoying cervical "step" when moving from anterior to posterior teeth.

Unique Certificate of Origin card allows both Shade and Mould of tooth to be recorded for patient peace of mind.

Comments from Rowland M Gardner (LOTA, MIMFT, LCGLI, Cert Ed) Chief Technician Queen Mary's Hospital, Sidcup.

"At last a true replacement for natural teeth! The form, function and shade range of PHYSIODENS seamlessly replaces natural teeth for fixed, removable, partial or complete prostheses A quantum improvement in aesthetics for a modest increase in cost No compromise"

Lecture / hands on course with Stuart Morganstein / Rowland Gardner at Panadent training suite Orpington, Kent.

Superb aesthetics and naturalness from VITA – the name you can trust with over 70 artificial tooth years manufacturing excellence.

STEP 1 FACE SHAPE

- OVOID
- TAPERING
- RECTANGULAR
- SQUARE

STEP 2 FACE PROFILE

- ROUND
- FLAT

STEP 3 FACIAL CURVATURE

- ROUND
- FLAT

STEP 4 HOW TO USE THE PUPILLARY DISTANCE MEASURE

0 10 20 30 40 50 60 70 80 90 100 110 120 mm

STEP 5 USE THE DATA FROM STEPS 1, 2, 3 AND 4 TO COMPLETE STEP 5 PLEASE ENSURE YOU MARK THE APPROPRIATE BOXES

FACE SHAPE	FACE PROFILE	FACIAL CURVATURE
<input type="checkbox"/> O OVOID	<input type="checkbox"/> PR ROUND	<input type="checkbox"/> CR ROUND
<input type="checkbox"/> T TAPERING	<input type="checkbox"/> PF FLAT	<input type="checkbox"/> CF FLAT
<input type="checkbox"/> R RECTANGULAR		
<input type="checkbox"/> S SQUARE		
Pupillary distance <input type="text"/> mm		

• Put measure in front of the patient. • Get the patient to look straight at you.
• Measure the distance between pupils in millimetres.

□ DON'T USE THE VITAVM® RANGE FOR SELECTED CASES – USE IT FOR EVERYTHING!

Mark Oborn RDT LBDIST
SBO Dental Lab -London-



■ **THE FIRST THING** I have to say about this ceramic is that if you are already using it I know you will be nodding in agreement with a big smile on your face by the time you get to the end of this article!

Alternatively if you are new to VITA ceramics (like me) you need to read this article to ensure you are fully aware of the materials that are available to technicians today.

With all the porcelains that are on offer to us it is so hard to choose between them; so let's start by making a wish list of ceramic properties. In my day to day job of making porcelain restorations I want a ceramic that:

- Can match the varying colours and nuances of natural teeth
- Has excellent stacking properties to make building up easier
- Has a reliable, versatile layering system for matching colours in thin section
- Can be used for ALUMINA, ZIRCONIA, PFM and dentine bonded restorations

If possible I would ideally also like a ceramic that:

- Is kept in stock by my supplier so I can get it next day, I can then keep my stock levels lower...good for business!

Now lets look at the VM range

Ability to match to natural teeth

One of the best things about this ceramic is its unique shade system, VITA SYSTEM 3D-MASTER. This is the first totally logical and scientific shade system; try this simple test.

Chose a shade, let's say B2, now mix B1 and B3 to see if you get B2. Logically this should work, but the VITA classic shades are not linear or logical and B2 is not in the middle of B1 and B3.

Now try this; chose a VITA SYSTEM 3D-MASTER shade with VM ceramic, lets say 2M1, now mix one lighter, 1M1 and one darker, 3M1 and this time you get 2M1. Why? Simple, the shades are logical and ordered within the colour spectrum. And with 26 shades instead of 16 shades to chose from this also simplifies shade taking. Figs. 1 & 2 show VM 7 crowns on the laterals.



Figure 1



Figure 2

Build-up and stacking properties

Can your ceramic do this? Fig 3.

No special liquids, no hairdryers.

This is hard enough for a PFM ceramics, but this is VM 7 for ALUMINA!



Figure 3

Matching colours in thin section

The VM range utilises a new concept in layering. They have base dentines, these „set“ the colour to the correct shade, dentines or „dentino-enamels“ are for contouring and are more translucent than regular dentines and finally enamels for final shape and enamel shadings.

Base dentines can be used on their own in very thin section to achieve the correct colour, if this is the case, layer with enamel only; and don't use any dentine.

Universal for all applications

As a ceramist using the VM range all I have to do is learn one colour concept. This then applies across the range to VM 9 for ZIRCONIA, VM 13 for PFM and VM 7 for ALUMINA. I often see patients for a shade prior to the preparation, if I shade for a PFM (VM 13) then the dentist decides to request a metal free (VM 9 or VM 7) all the colours are the same and I can use my original shade map.

Summary

I tried VITA porcelains a few years ago and they did not really suit my technique then. The formulation has changed dramatically with the VM concept, and I have to say that they have hit upon a winner with this system.

The VM colours are true to the shade guide, it handles really well, is soft to polish and looks great intra-orally.

I like VITAVM!

VITAVM® VENEERS & INLAY/ONLAY –

everyday hints & tips

CONSTRUCTION OF VENEERS on Vitadurvest refractory material works well with the VITA VM 7 (as well as traditional Alpha) as the CTE is well matched. Vitadurvest sets quickly and is strong enough to pour directly into an impression if desired.

The VM 7 Chemical & Physical structure make it easier to get quality results due to clever optical properties of VITA's new generation of materials. This means with either VM 7 Base Dentine and Enamel 2 powder technique or Base Dentine, Dentine Enamel 3 powder technique you get excellent aesthetics and good coverage of slightly discoloured underlying natural dentine but there is a limit...! When, as is common, there is little room to build porcelain and there is existing discoloured dentine what can help you to get an acceptable result?

tor helps you select the colour you might need. Should you be really up against space then you can call on the CHROMAPLUS powders which as their name suggest has greater Chroma to assist in getting the colour correct.

Better colours at the marginal junction
EFFECT LINERS can also help to disguise the junction between ceramic and the tooth margin as the light is carried through the tooth substance into the ceramic. An added advantage is stability; firing at 10°C higher than the Base Dentine it helps to maintain the integrity of the margin during the main firing process.

Easier control of shrinkage & less firing cycles
Particularly in Veneers and Inlays less shrinkage is a big plus making it easier to size up the over build, VM 7 shrinks 20% less than its established partner Alpha.

cement. It is worth checking with the supplier that the cement is recommended for use with this type of restoration. Some cements in the category Resin reinforced Glass ionomers, dimensionally change slightly within 24 hours of fitting causing fractures.

A "Clinical Aspects" Publication is available for more detail.

References:

Luc & Patrick Rutten "A date with VM 7" Dental Dialogue Vol 4 6/2004
Edward A McLaren, DDS Russell A Giordano DMD, DmedSc, Zirconia Based Ceramics: material properties, Esthetics and layering techniques of a new veneering porcelain, VM 9 – QDT 2005 Vol 28

Copies of these 2 publications are available upon request.

Firing cycles for VITA VM 7 on Vitadurvest refractory die material
Amend normal firing cycles for VITA VM 7 in a VACUMAT furnace as follows:

	Pre-dry	Hold time in min	Rate of climb in min	End temp	Hold temp in min	vacuum
EFFECT LINER	600	7 to 8	7 to 8	920	1.5 to 2 depending on size of vitadurvest model	7 to 8
1st Dentine	600	7 to 8	7 to 8	910	1.5 to 2 depending on size of vitadurvest model	7 to 8
Glaze	600	6	6	900	1.5 to 2 depending on size of vitadurvest model	0

Disguising discoloured dentine
EFFECT LINERS are a useful tool for the ceramist as they give the illusion of vitality in very thin sections which is particularly useful way of disguising discoloured dentine. Tries putting a thin wash on the sealing investment and fire it separately at 10°C higher temp than the Base Dentine (working manual for temps). EL1, EL2 and EL4 are some of the more common colours when used in this way. The VM EFFECT LINER indica-

Improved Strength & easier finishing
Whilst there is a lot of discussion about strength the vulnerable time is during cementation – Veneers work although everybody thought they wouldn't! VM 7 has about 20% more strength so it provides more latitude during the fitting process. The more dense structure also lends itself to easier polishing in or out of the mouth.

Cements
Make sure you use Bis-GMA conventional dual cure cements such as VITA DUO

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VITA VM13 ALLOYS a survey of alloys compatible with VM13 is available from **Panadent on 01689 881760**