

# VITAVM<sup>®</sup>9

## Product information



VITA shade taking

VITA shade communication

VITA shade reproduction

VITA shade control

Date of issue: 08.13

VITA shade, VITA made.

**VITA**

For veneering zirconia substructures and for individualizing VITABLOCS and VITA PM 9 restorations. Available in VITA SYSTEM 3D-MASTER and VITA classical A1–D4 shades.

VITA LabNews – now available at:  
[www.vita-zahnfabrik.com/labnews](http://www.vita-zahnfabrik.com/labnews)

## VITAVM<sup>®</sup>9 Perfectly matched with all indications

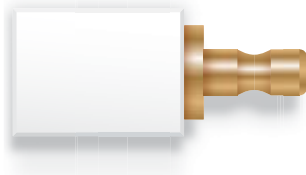
### Veneering Material · VITAVM<sup>®</sup>9

available in VITA SYSTEM 3D-MASTER and VITA classical A1–D4 shades

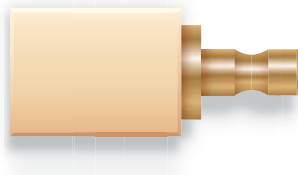


#### Machinable Materials

partially yttrium-stabilized zirconia substructures



VITABLOCS\*



#### Pressable Materials

VITA PM 9\*

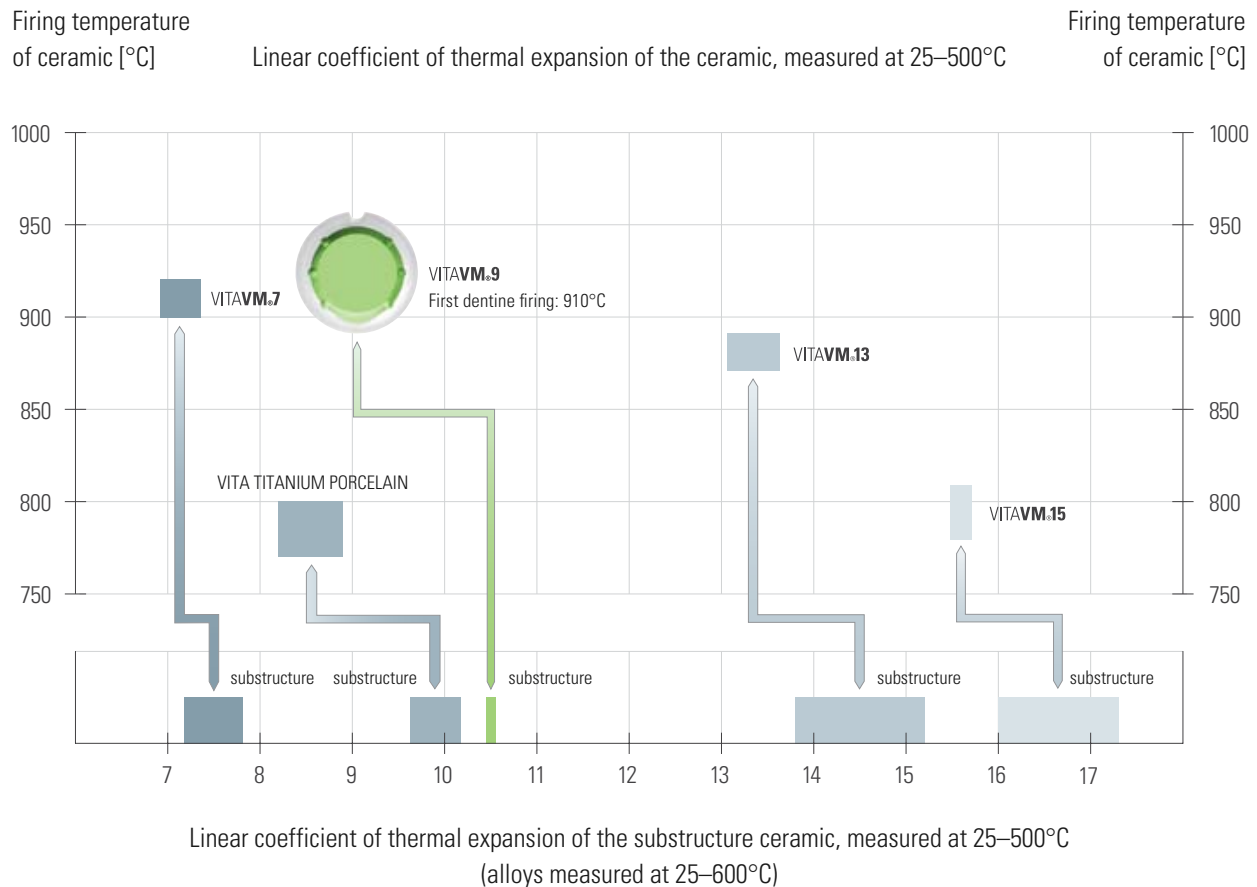


VITA VM 9 is a high-melting, natural fine-structure feldspar veneering material. The CTE is precisely adjusted to zirconia materials with a CTE of approx. 10.5 (such as VITA In-Ceram YZ), which guarantees optimum bonding and absolutely reliable results.

\* VITA VM 9 is perfectly suited for individualizing

- VITABLOCS
- VITA PM 9

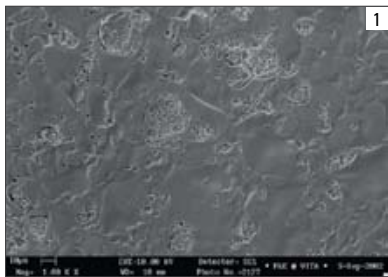
## VITA VM.9 Reliable use thanks to simple classification



Veneering material	Substructure material
VITA VM 7 CTE (25–500°C) $6.9\text{--}7.3 \cdot 10^{-6} \cdot \text{K}^{-1}$	VITA In-Ceram ALUMINA CTE (25–500°C) $7.2\text{--}7.6 \cdot 10^{-6} \cdot \text{K}^{-1}$ VITA In-Ceram ZIRCONIA CTE (25–500°C) $7.6\text{--}7.8 \cdot 10^{-6} \cdot \text{K}^{-1}$
VITA TITANIUM PORCELAIN CTE (25–500°C) $8.2\text{--}8.9 \cdot 10^{-6} \cdot \text{K}^{-1}$	for titanium and titanium alloys Titanium CTE (25–500°C) approx. $9.6 \cdot 10^{-6} \cdot \text{K}^{-1}$ Ti <sub>6</sub> Al <sub>4</sub> V CTE (25–500°C) approx. $10.2 \cdot 10^{-6} \cdot \text{K}^{-1}$
VITA VM 9 CTE (25–500°C) $9.0\text{--}9.2 \cdot 10^{-6} \cdot \text{K}^{-1}$	VITA In-Ceram YZ CTE (25–500°C) approx. $10.5 \cdot 10^{-6} \cdot \text{K}^{-1}$ VITABLOCS CTE (25–500°C) approx. $9.4 \cdot 10^{-6} \cdot \text{K}^{-1}$ VITA PM 9 CTE (25–500°C) $9.0\text{--}9.5 \cdot 10^{-6} \cdot \text{K}^{-1}$
VITA VM 13 CTE (25–500°C) $13.1\text{--}13.6 \cdot 10^{-6} \cdot \text{K}^{-1}$	High gold content, reduced precious metal content, palladium based and non-precious alloys CTE (25–600°C) $13.8\text{--}15.2 \cdot 10^{-6} \cdot \text{K}^{-1}$ *
VITA VM 15 CTE (25–500°C) $15.5\text{--}15.7 \cdot 10^{-6} \cdot \text{K}^{-1}$	Multi-indication alloys CTE (25–600°C) $16.0\text{--}17.3 \cdot 10^{-6} \cdot \text{K}^{-1}$ *

\* visit the download section of our website for more information about alloys

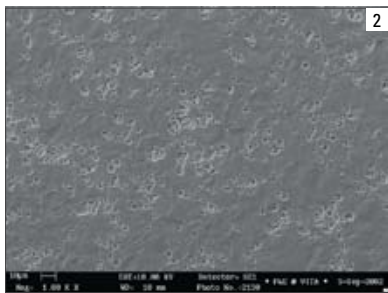
## VITA VM 9 Homogeneous surface



### The conventional ceramic

The etched surface (etched for 20 seconds with VITA CERAMICS ETCH) reveals agglomerates of leucite crystals of up to 30 µm in diameter.

The differences between the CTE values of the leucite agglomerates and those of the glass phase frequently result in stress cracks.



### The fine difference

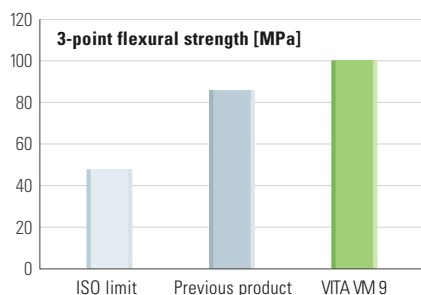
With VITA VM 9, a ceramic has been developed which clearly reveals more homogeneous distribution of the crystal and glass phases after firing than conventional ceramics. This innovative fine-structure is unrivaled and characteristic for all ceramic components of the VITA VM concept – whether for metal or all-ceramic materials.

The etched surface of VITA VM 9 reveals particularly fine and homogeneous distribution of the leucite crystals in the glass phase. As a result, the formation of stress cracks is avoided and a smooth and perfectly dense surface is created, which provides VITA VM 9 with excellent milling and polishing properties. Plus, the accumulation of plaque is considerably reduced and easy care and cleaning of restorations are enabled.

The low solubility of VITA VM 9 ensures high resistance in the oral environment and prolonged period of wearing.

**Fig. 1:** SEM image of the surface of a ceramic with conventional structure (magnification 5000 x).

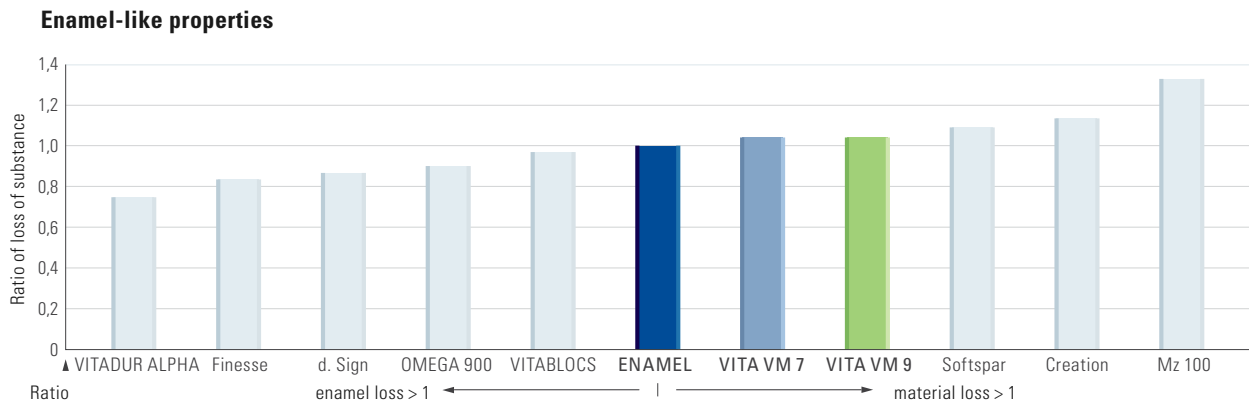
**Fig. 2:** SEM image of the surface of VITA VM 9 (magnification 5000 x).



### Flexural strength

Flexural strength of VITA VM 9 compared with that of the previous product and the ISO limit according to ISO 6872.

## VITA VM 9 Enamel-like abrasion behavior



All fine-structure ceramics of VITA are convincing because of their excellent enamel-like properties, which is documented by the studies of the Dental Clinic of the University of Zurich and the Goldman School of Medicine of the University of Boston carried out with VITA VM 7 and VITA VM 9.

The left half of the diagram shows the increasing enamel loss caused by abrasion. The right half shows the increasing substance loss. The abrasion properties of VITA VM 7 and VITA VM 9 are very similar to those of natural enamel.

(Prof. Dr. Russel A. Giordano II, Boston University Prof. Dr. Edward A. McLaren, UCLA, Literature : E. A. McLaren, R. A. Giordano II, R. Pober, B. Abozenada „Zweiphasige Vollglas-Verblendkeramik“, Quintessenz Zahntech 30, 1, 32–45 [2004] )

### Advantages of the innovative fine-structure ceramic:

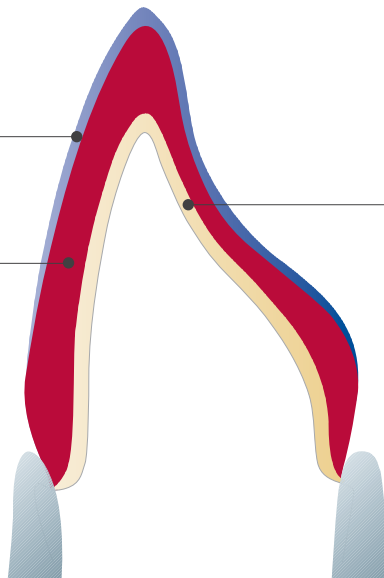
- Excellent bonding ensures reliable results
- Optimal processing characteristics such as superior stability, minimized shrinkage behavior and high edge stability
- Outstanding firing stability even after several firing processes
- Excellent grinding and polishing properties, especially in situ
- Homogeneous and dense surfaces
- Proven similarity with enamel
- More dynamics of light, more luminosity, more shades thanks to a comprehensive range of additional materials for individualization

## VITA VM<sup>e</sup>9 Efficiency thanks to two layering types

VITA VM 9 ENAMEL



### BASIC layering



Colored all-ceramic substructure (CTE approx. 10.5)

VITA VM 9 BASE DENTINE



The VITA VM layering concept is based on the structure of natural teeth and differs clearly from all familiar layering concepts.

### BASIC layering

Color-intensive VITA VM BASIC layering includes the application of two materials:

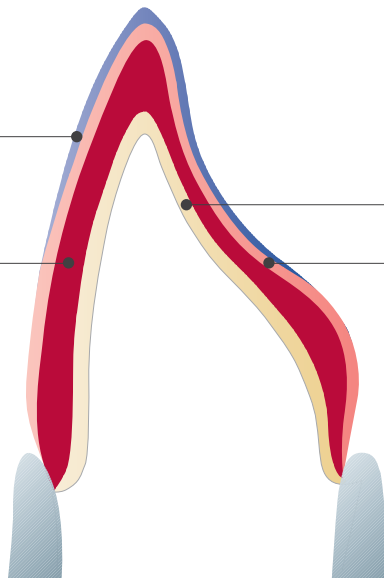
- BASE DENTINE
- ENAMEL

Thanks to the color-bearing BASE DENTINE, this two-layer variation is particularly suited for the reproduction of the shade of restorations with thin walls and provides a reliable and efficient solution. The user is able to prepare a natural restoration with a life-like appearance with only two layers.

VITA VM 9 ENAMEL



### BUILD UP layering



Colored all-ceramic substructure (CTE approx. 10.5)

VITA VM 9 BASE DENTINE



VITA VM 9 TRANSPA DENTINE



### BUILD UP layering

Translucent VITA VM BUILD UP layering includes the application of three materials:

- BASE DENTINE
- TRANSPA DENTINE
- ENAMEL

The combination of color-bearing BASE DENTINE and translucent TRANSPA DENTINE creates an enhanced effect of depth in demanding high end restorations, which results in even more convincing reproduction of the natural example.

### Individualization

For both layering types a comprehensive range of additional materials is available for preparing individual esthetic restorations.

## VITAVM<sup>®</sup>9 Matched additional materials for top-quality individualization



Middle-aged tooth with lifelike appearance and effect of depth. This tooth was layered with BASE DENTINE, ENAMEL and individual additional materials.

### VITAVM<sup>®</sup>9 EFFECT ENAMEL

To prepare bluish translucent wedges

### VITAVM<sup>®</sup>9 EFFECT CHROMA

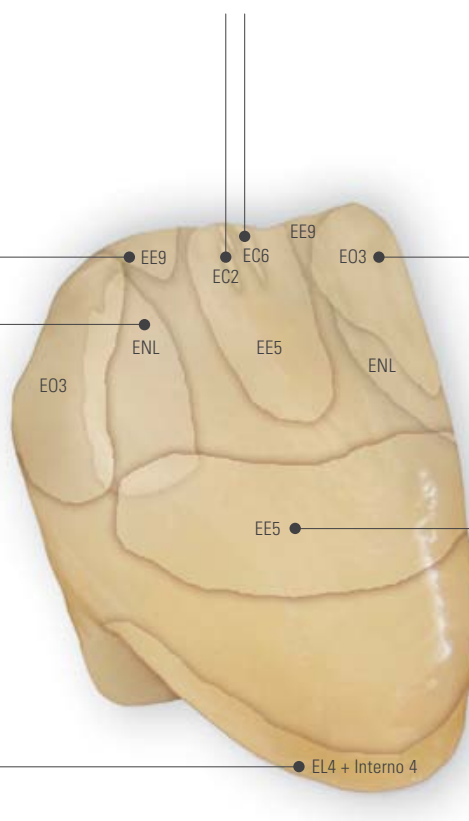
To create minor nuances and lighter areas

### VITAVM<sup>®</sup>9 EFFECT OPAL

To create bluish orange areas

### VITAVM<sup>®</sup>9 ENAMEL

To incorporate lighter mesial and distal edges



### VITAVM<sup>®</sup>9 EFFECT LINER + VITA INTERNO<sup>®</sup>

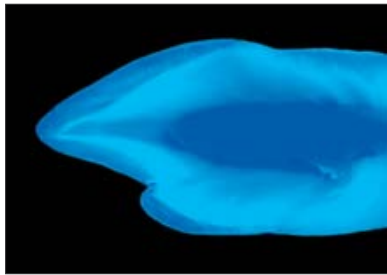
To increase the fluorescence and translucency in the neck area

### VITAVM<sup>®</sup>9 EFFECT ENAMEL

To increase the effect of depth by applying EE5 directly to BASE DENTINE



## VITAVM<sup>®</sup>9 Natural esthetics



### Vivid play of colors with VITAVM<sup>®</sup>9

The objective of any esthetic dental restoration is the reproduction of the fluorescence and opalescence of natural teeth. Like all VITA VM materials, VITAVM9 excels in its refraction and reflection behavior which can be compared to that of enamel.

The picture taken under UV light clearly shows that different levels of fluorescence are found in natural teeth.

Numerous VITA VM materials contain pigments which add fluorescence to the restorations. The use of fluorescent and opalescent additional materials leads to individual and esthetically appealing results.

The EFFECT LINER and MAMELON materials, for example, feature particularly distinctive fluorescence.










Picture taken at daylight: abundance of variations of opal effects

The EFFECT OPAL materials were especially developed to create the opal effect found in the surface of translucent and young teeth.

**Materials available :** Five iridescent EFFECT Opal materials featuring opalescence unaffected by firing.











## VITAVM<sup>®</sup>9 Modular and efficient arrangement of assortments

	<p><b>VITAVM<sup>®</sup>9 BASIC KIT*</b></p> <p>Basic assortment for BASIC layering (also available as BASIC KIT SMALL with reduced range of materials)</p>
	<p><b>VITAVM<sup>®</sup>9 BUILD UP KIT*</b></p> <p>Add-on assortment for BUILD UP layering (also available as BUILD UP KIT SMALL with reduced range of materials)</p>
	<p><b>VITAVM<sup>®</sup>9 CLASSICAL COLOR KIT</b></p> <p>Assortment for VITAVM9 3D-MASTER customers who wish to add VITA classical shades A1–D4 shades to their assortment. The kit contains 16 BASE DENTINE materials for BASIC layering and 16 additional TRANSPARENCY materials for BUILD UP layering.</p>
	<p><b>VITAVM<sup>®</sup>9 PROFESSIONAL KIT**</b></p> <p>For incorporating all natural effects and characteristics (also available as PROFESSIONAL KIT SMALL)</p>
	<p><b>VITAVM<sup>®</sup>9 BLEACHED COLOR KIT</b></p> <p>Ultra-bright shades for the reproduction of bleached teeth</p>
	<p><b>VITAVM<sup>®</sup>9 GINGIVA KIT**</b></p> <p>Gingiva materials with natural effects</p>
	<p><b>VITAVM<sup>®</sup>9 MARGIN KIT**</b></p> <p>For minor corrections in the area of margins to create an esthetic transition</p>

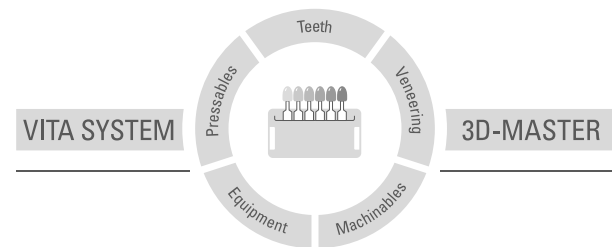
\* Available in VITA SYSTEM 3D-MASTER and VITA classical A1–D4 shades. \*\* Can be used for VITA SYSTEM 3D-MASTER and VITA A1–D4 shades

## VITAVM.9 A perfectly harmonized complete system

	<p><b>VITA Easyshade® Advance 4.0</b></p> <p>VITA Easyshade Advance 4.0 is a further refinement of VITA Easyshade Advance. This digital shade measurement device allows any user to determine the shade of natural teeth or to verify restorations in a matter of seconds, regardless of available lighting. The tooth shade measured is indicated in VITA classical A1–D4, VITA SYSTEM 3D-MASTER and in VITABLOC shades. Automatic activation, Bluetooth®, VDDS interface, bleaching mode and numerous other innovative features guarantee maximum precision for even greater reliability and comfort.</p>
	<p><b>VITA Linearguide 3D-MASTER/VITA Toothguide 3D-MASTER®</b></p> <p>With the VITA SYSTEM 3D-MASTER you can determine the correct tooth shade swiftly and accurately. The new VITA Linearguide 3D-MASTER is an alternative to the proven VITA Toothguide 3D-MASTER and features different (linear) arrangements of the shade sample teeth.</p>
	<p><b>VITA classical A1–D4 shade guide</b></p> <p>The original - for the determination of the tooth shade in the VITA classical A1–D4 shades. With the additional VITA Bleached Shades, reliable shade determination for bleached teeth is now available.</p>
	<p><b>VITA In-Ceram® YZ</b></p> <p>The partially yttrium-stabilized zirconia combines high translucency with exceptional strength and superior fracture toughness.</p>
	<p><b>VITABLOCS®/ VITAPM®9</b></p> <p>VITA VM 9 is perfectly suited for individualizing VITABLOCS restorations milled in CAD/CAM systems and for restorations overpressed with VITA PM 9. The VITA VM 9 ESTHETIC KIT is available for VITABLOCS.</p>
	<p><b>VITA VACUMAT New Generation for perfect individual solutions</b></p> <p>The modular firing system comprises the premium furnace VITA VACUMAT 6000 M for all dental-ceramic firings and four freely selectable control units (vPad easy, vPad comfort, vPad excellence and vPad clinical), which enable up to four furnaces to be controlled with one control unit. The user can choose only the modules that they require and can add further components (furnace, control unit, accessories) to the system at any time. That way, you are enabled to configure a very favorably-priced furnace system that is perfectly matched to your requirements.</p>
	<p><b>VITA AKZENT® Plus</b></p> <p>With VITA AKZENT PLUS stains, users can optimize the shade of all types of dental ceramic restorations simply and efficiently, regardless of the CTE of the restoration.</p>
	<p><b>VITA INTERNO®</b></p> <p>The materials offer the ability to create in-depth shade effects. Their high fluorescence adds very high luminosity to the shades.</p>

VITA VM 9 veneering material is available in VITA SYSTEM 3D-MASTER and VITA classical A1–D4 shades. Shade compatibility with all VITA 3D-MASTER and VITA classical materials is ensured.

With the unique VITA SYSTEM 3D-MASTER all natural tooth shades are systematically determined and completely reproduced.



**Please note:** Our products must be used in accordance with the instructions for use. We accept no liability for any damage resulting from incorrect handling or usage. The user is furthermore obliged to check the product before use with regard to its suitability for the intended area of application. We cannot accept any liability if the product is used in conjunction with materials and equipment from other manufacturers that are not compatible or not authorized for use with our product. Furthermore, our liability for the accuracy of this information is independent of the legal basis and, in as far as legally permissible, shall always be limited to the value as invoiced of the goods supplied, excluding value-added tax. In particular, as far as legally permissible, we do not assume any liability for loss of earnings, indirect damages, ensuing damages or for third-party claims against the purchaser. Claims for damages based on fault liability (culpa in contrahendo, breach of contract, unlawful acts, etc.) can only be made in the case of intent or gross negligence. The VITA Modulbox is not necessarily a component of the product.  
Date of issue of this information: 08.13

After the publication of these working instructions any previous versions become obsolete. The current version can be found at [www.vita-zahnfabrik.com](http://www.vita-zahnfabrik.com)

VITA Zahnfabrik has been certified in accordance to the Medical Device Directive and the following products bear the mark  0124:

VITA**VM**•9 · VITA**PM**•9 · VITA**BLOCS**® · VITA In-Ceram® **YZ**  
VITA AKZENT® **Plus** · VITA **INTERNO**®

The photos on page 9 were provided with the kind support of Mr. Claude Sieber.

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