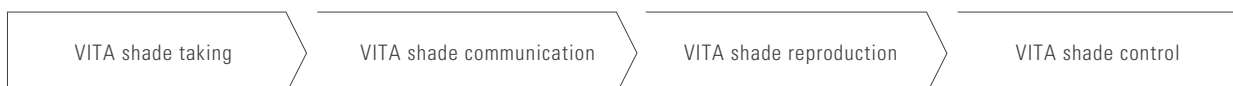
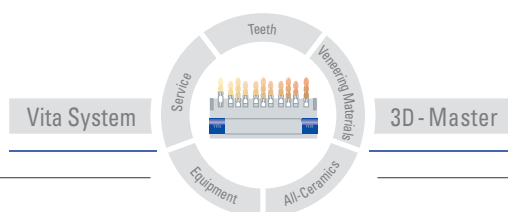


# VITAVM<sup>®</sup>.CC

Working Instructions



Date of issue 3-09



# VITA

A filler-free cold-curing acrylic resin for the fabrication of indirect temporary restorations and for repairs. Available in the VITA SYSTEM 3D-MASTER and VITAPAN classical A1-D4 shades.

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## Over 80 years of competent management

Shade management is more than just shade determination. At VITA, shade management means taking responsibility for finding even better solutions and incorporating these into a complete process. That is VITA's key objective: How can we improve shade determination and reproduction? This is possible through standardized process steps for increased efficiency. The challenge to the dental professional today is to achieve better results while spending less time and money. It is this goal that brings us together.



## VITA shade taking

The unmistakable determination of the basic shade of a tooth is the key prerequisite for patient acceptance. The basic shade is found in the dentine center (central to gingival area).



## Determining the shade effects

Each natural tooth is a unique miracle of nature, so once the basic shade has been determined, it is important to establish the detail of the tooth, e.g. translucent areas or anomalies, in order to make the reproduction as similar to the natural tooth as possible. We recommend taking a digital photo in order to analyze the shade effects and details.



## VITA shade communication

To ensure perfect reproduction of the tooth shade, it is equally as important to ensure that the shade is communicated accurately to the dental laboratory as it is to actually determine the shade, as any misunderstanding leads to expensive and unnecessary extra work. For this reason we recommend using the color communication form and a digital photo for the effects and details. The VITA Easyshade software contains a template that enables you to accumulate all the data on one sheet of paper, like a shade recipe for the laboratory. Armed with this information, your dental technician can reliably and quickly create a restoration that matches the remaining teeth perfectly.



## VITA shade reproduction

The most important step in reproducing a tooth shade is ensuring that once determined, the basic tooth shade is accurately reproduced. Then the shade effects of the tooth can be cleverly reproduced in order to produce a high-quality restoration. As a dental technician, you can rest assured that whichever VITA materials you choose, you will be able to achieve these two things without any tedious mixing or testing.

## VITA shade control

The last step in the VITA process is the qualitative shade evaluation of the restoration. An objective check of the result of shade reproduction is the most important prerequisite for ensuring satisfied patients and avoiding remedial work. For VITA VM CC, shade control is carried out with the VITA Toothguide or the VITA LINEARGUIDE 3D-MASTER.

**Material properties - advantages**

The selection of premium quality raw materials and their careful processing result in the outstanding material properties of VITAVM CC.

Particularly the excellent mixing properties and the superb flow characteristics permit fast and efficient working. Easy polishability and a homogenous material structure greatly inhibit plaque accumulation. The smooth surface of the temporary restoration makes it pleasant and very comfortable for the patient to wear.

**VITAVM®CC offers the following additional advantages:**

- Sufficient processing time
- Considerably reduced material wear
- Excellent material stability, hence reduced risk of fracture thanks to perfectly matched flexural strength and modulus of elasticity
- Higher color stability than comparable systems
- Bubble-free curing, with and without pressure pot

**Polymerizing in the pressure pot (recommended)**

Polymerization time: 10 minutes  
 Water temperature: 40 °C  
 Pressure: 2 – 2.5 bar

**Curing without pressure pot**

Curing time: approx. 10 minutes, depending on the room temperature

**Technical Data**

Properties*	Unit of measure	Value
Flexural strength	MPa	83
Modulus of elasticity	MPa	2100
Water absorption	µg/mm <sup>3</sup>	18
Solubility	µg/mm <sup>3</sup>	2

\* ISO 10477 / DIN EN 27491 / ISO 7491 / other tests  
 The technical / physical values indicated are typical measuring results and refer to internal samples and measurements carried out with measuring equipment available on site.

The determined values refer to samples prepared on the basis of the exact mixing ratio. The values may vary if the mixing ratio is not exactly adhered to.

VITAVM CC is a filler-free cold-curing resin.

It is the ideal material for the fabrication of indirect temporary restorations.

The temporary restoration is an essential element within the treatment process of patients with fixed dental restorations. Basically, it serves to protect prepared teeth and to temporarily restore the esthetic appearance and the function. If used correctly, however, the material offers additional benefits: the use of the temporary restoration allows the technician to plan and contour the final restoration in a perfect manner. Especially in cases of anterior restorations, dentist and dental technician are able to perform esthetic, phonetic and functional corrections already during the fabrication of the temporary restoration. Furthermore, patients will accept the new restoration more readily since they have time to become familiar with the new situation after wearing the temporary restoration for a certain period.

VITAVM CC plays a key role in all these aspects. It means that the patient can have natural esthetics from the temporary restoration stage onwards.

### **Indications:**

- Fabrication of temporary crowns and bridges
- Cementation of VITA acrylic teeth, e.g. on model casting prostheses
- Repairs
- Covering of attachments in combined restorations

### **Contraindication:**

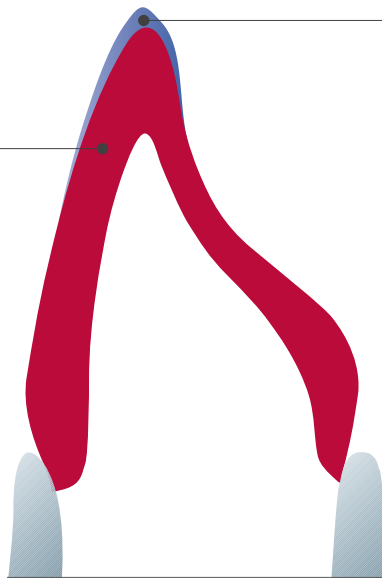
- Definitive veneers

⚠ **Note:** The light-curing opaque material VITAVM LC OPAQUE is recommended for covering metal frameworks.

⚠ **Note:** For long-term temporary restorations with or without metal substructure the use of VITAVM LC is recommended..

VITAVM CC BASE DENTINE

VITA VM CC ENAMEL



The VITAVM CC BASIC layering consists of two material layers: BASE DENTINE and ENAMEL.

With only two layers the user can achieve a natural looking temporary restoration. For optimum shade reproduction and to ensure sufficient stability, a minimum layer thickness of 0.5 mm should be ensured.



### Modeling the wax-up

The wax-up is the basis of the temporary restoration. The tooth mould that is modelled should be identical with the planned restoration to be able to check the esthetics and the function in the mouth using the temporary restoration. The function can already be checked and adjusted in the articulator with the wax-up.

When fabricating bridges, the connector areas between the crowns and the bridge units should be as large as possible.



**Note:** A model featuring a similar anatomy provides a useful basis for the wax-up to transfer the typical characteristics of the respective tooth shape. A working model without sawcuts is recommended.

Prepare a silicone key for casting later on.



A very precise silicone which features sufficient hardness and dimensional stability should be used.

Carefully remove the silicone and remove the wax by boiling it off.



Blow the model dry and block out undercuts with wax.

Then soak the model for 5 minutes and wet with a sufficient quantity of a low-viscous plaster-resin separating liquid (alginate liquid). Alternatively, VITA VM LC SEPARATOR can be used. Adhere to the working instructions.

**Note:** applied spacer varnish can be partially dissolved by the VITA VM CC material.



Reduce the palatal silicone key using a scalpel and cut in the feeder sprues. For casting, attach the silicone key firmly to the model with VITA VM CC.



**Mixing**

Powder and liquid are mixed in a silicone cup. VITAVM CC must be mixed in order to obtain a liquid consistency. Depending on the room temperature, more or less LIQUID needs to be used for mixing.



**Mixing ratio:**

A large measuring scoop of VITAVM CC powder (approx. 0.23 g) is mixed with 4 drops (approx. 0.13 g) VITAVM CC LIQUID. (reference value)

VITAVM CC is classed as a hazardous substance. Please heed instructions on p. 14.



The mixture has a doughy consistency after it has been stirred evenly and can be processed after an adequate swelling time (approx. 1 minute).

The processing time span is 4 - 5 minutes depending on the room temperature.



If the correct mixing ratio is adhered to and the mixture is evenly stirred with the instrument at the bottom of the mixing cup, smears and bubbles can be avoided.



Pour the prepared VITAVM CC BASE DENTINE into the silicone key.





**Polymerization:**

Polymerization in the pressure pot results in enhanced material properties and is recommended; for hardening VITA VM CC, however, it is not necessary.

**Polymerization in the pressure pot:**

40°C water temperature,  
2 - 2.5 bar pressure, 10 minutes



To obtain space for the enamel, the BASE DENTINE needs to be cut back according to the layering pattern. For this purpose the teeth should be slightly ground in the incisal area and mamelons should be prepared. Use cross-cut tungsten carbide burs as abrasive tools.

The silicone key is used for control.



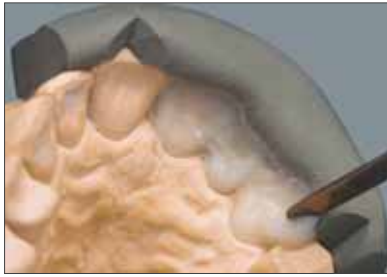
If several polymerization processes are used to build up the restoration, the surface is ground with tungsten carbide burs (15,000 rpm)...



... and wetted subsequently with VITA VM CC LIQUID. Apply the material to be added with an instrument and polymerize.



Then wet the BASE DENTINE with LIQUID. Use an instrument to apply some of the prepared ENAMEL material to the reduced bridge and some material into the labial half of the key.



Position the key exactly at the model and remove excess material.  
Affix the key firmly to the model.

Polymerize subsequently.  
(see the processing information on page 8).



Finishing and corrections to the contour can be made using  
tungsten carbide burs at a speed of 15,000 rpm.



Then prepolish the restoration.



The final high-lustre polishing is achieved with a cotton or leather  
buff at a speed of 5,000 rpm.



Place the temporary restoration onto the saw model.

The completed temporary restoration.







## VITAVM<sup>®</sup>CC Classification tables and additional materials

The following classifications are intended only as guidelines!

VITA SYSTEM 3D-MASTER shades	ENAMEL
0M1	ENL
1M1 (~ B1)	ENL
2L1.5 (~ B2)	ENL
2M1 (~ A1)	ENL
2M2 (~ A2)	ENL
2M3	ENL
3L1.5 (~ C2/D4)	ENL
3L2.5 (~ B3)	ENL
3M1 (~ C1/D2)	ENL
3M2 (~ A3/D3)	ENL
3M3 (~ B4)	ENL
3R1.5	ENL
3R2.5 (~ A3,5)	ENL
4L1.5 (~ C3)	END
4M2 (~ A4)	END
5M1 (~ C4)	END

VITAPAN classical A1 – D4 shades	ENAMEL
A1	ENL
A2	ENL
A3	ENL
A3,5	END
A4	END
B2	END
B3	END
B4	END
C1	END
C2	END
C3	ENL
C4	ENL
D2	END
D3	END
D4	END

\* If the traditional VITAPAN classical A1 – D4 shade guide is used for shade selection, highly similar shades can be reproduced with VITA VM CC 3D-MASTER. The best possible match to the given VITAPAN classical shade is indicated in each case.

<b>VITAVM<sup>®</sup>CC EFFECT LINER</b> – for intensifying the shade of the cervical area – universally applicable for enhancing and intensifying the basic shade		EL2	cream	beige
		EL3	tabac	brown
		EL4	golden fleece	yellow
		EL5	papaya	orange
		EL6	sesame	green-yellow
<b>VITAVM<sup>®</sup>CC WINDOW</b> – transparent resin for adding individual characteristics		WIN	transparent	



VITAVM <sup>®</sup> CC BASIC KIT 16-COLOR**		
Basic assortment kit for the BASIC layering technique		
Pcs	Content	Material
16	30 g	BASE DENTINE*
2	30 g	ENAMEL ENL, END
1	30 g	WINDOW WIN
1	100 ml	VITA VM CC LIQUID
1	–	Measuring spoon
1	–	VITA Toothguide 3D-MASTER
1	–	Working instructions

\* in the following shades: 0M1, 1M1, 2L1.5, 2M1, 2M2, 2M3, 3L1.5, 3L2.5, 3M1, 3M2, 3M3, 3R1.5, 3R2.5, 4L1.5, 4M2, 5M1

\*\* also available as VITAVM CC BASIC KIT classical in the VITAPAN classical A1-D4 shades (without B1)



VITAVM <sup>®</sup> CC BASIC KIT 5-COLOR*		
A small, basic assortment kit for the BASIC layering technique		
Pcs	Content	Material
5	30 g	BASE DENTINE 1M1, 2M2, 3M2, 3R2.5, 4M2
2	30 g	ENAMEL ENL, END
1	30 g	WINDOW WIN
1	30 ml	VITA VM CC LIQUID
1	–	Measuring spoon
1	–	VITA Toothguide 3D-MASTER
1	–	Working instructions

\* also available as VITAVM CC BASIC KIT SMALL classical in the following 6 shades: A1, A2, A3, A3.5, B3, D3





VITAVM <sup>®</sup> CC CLASSICAL COLOR KIT*		
A complementary assortment kit for 3D-MASTER users		
Pcs	Content	Material
15	30 g	BASE DENTINE A1–D4 (ohne B1)
1	100 ml	VITA VM CC LIQUID
1	–	Measuring spoon
1	–	VITAPAN classical shade guide
1	–	Working instructions




\* Assortment for VITA VM CC 3D-MASTER users wishing to add VITAPAN classical to their existing assortment



<b>VITAVM<sup>®</sup>CC PROFESSIONAL KIT</b> For natural effects and characteristics		
Pcs	Content	Material
5	30 g	EFFECT LINER EL2-EL6

The following products are subject to compulsory labeling:		
<p><b>VITAVM<sup>®</sup>CC LIQUID</b> (Contains methyl methacrylate, ethylene glycol dimethacrylate, N,N-dimethyl-p-toluidine)</p>	<p><b>Injurious to health, highly flammable</b> Inhaling, swallowing and skin contact injurious to health</p> <p>Irritates skin, eyes and respiratory organs.</p> <p>May cause sensitization by skin contact.</p>	  

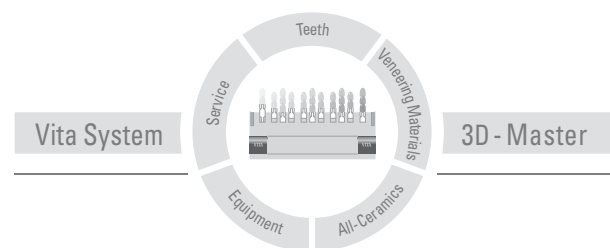
For further information Please see the corresponding Material Safety Data Sheets!

<p><b>Health and safety at work</b></p>	<p>Wear suitable protective goggles/face mask, protective gloves and protective clothing when working. Work under an extraction unit.</p>	  
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The VITAVM CC acrylic veneering resin is available in the VITA SYSTEM 3D-MASTER and VITAPAN classical A1 – D4 shades. Shade compatibility with all VITA SYSTEM 3D-MASTER and VITAPAN classical A1 – D4 materials is guaranteed.

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



**Please note:** Our products should be used according to the working instructions. We cannot be held liable for damages 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 applications. We cannot accept any liability if the product is used in conjunction with materials and equipment from other manufacturers which are not compatible or not authorized for use with our product. Furthermore, our liability for the correctness of this information is independent of the legal ground and, in as far as legally permissible, is limited to the invoiced value of the goods supplied excluding turnover tax. In particular, as far as legally permissible, we do not assume any liability for profit loss, for indirect damages, for consequential damages or for claims of third parties against the purchaser. Claims for damages based on fault liability (fault in making the contract, breach of contract, unlawful acts, etc.) can only be made in the case of intent or gross negligence. Date of issue of these instructions for use: 03.09

On publication of this issue of the instructions for use, all previous versions are rendered invalid. The current version is available under [www.vita-zahnfabrik.com](http://www.vita-zahnfabrik.com)

VITA Zahnfabrik has been certified according to the law concerning medical devices and the following products bear the CE mark **CE 0124**:  
VITAVM<sup>®</sup>CC

US 5498157 A  
AU 659964 B2  
EP 0591958 B1

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