

# VITABLOCS®

Instructions for use



VITA shade determination

VITA shade communication

VITA shade reproduction

VITA shade control

Date of issue: 2022-07

VITA – perfect match.

**VITA**

Fine-structure feldspar ceramic blocks  
for the fabrication of inlays, onlays,  
veneers and crowns



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VITABLOCS are industrially manufactured, fine-structure feldspar ceramic blocks used to fabricate inlays, onlays, veneers and crowns with various CAD/CAM systems. Compared to other machinable silicate ceramics available on the market, they are characterized by their special combination of feldspar materials and fine particle microstructure, which offers chipping resistance, protection of the natural tooth substance against abrasion and good polishing properties.

Millions of clinically proven restorations have been fabricated using VITABLOCS - the world's first fine-structure dental ceramic. Survival rates of 97% for crowns after five years, 95.5% after nine years and 84.4% after 18 years for inlays, correspond to the gold standard. This can also be attributed to the excellent adhesive bond between ceramic and tooth substance, which is achieved with the excellent etching properties of VITABLOCS.

VITABLOCS TriLuxe forte have been available in different shade intensity levels since 2007. VITABLOCS Reallife were introduced in 2010.

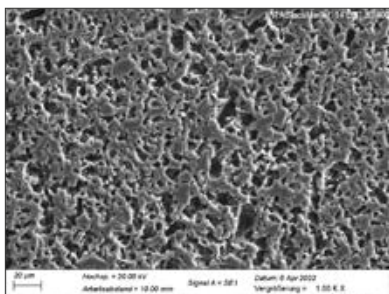
VITABLOCS TriLuxe, TriLuxe forte and Reallife are produced from the proven Mark II ceramic. In addition to the excellent reflective effects and the white fluorescence of the Mark II ceramic, various color saturation levels (chroma) and translucency levels can be combined in one block through a special manufacturing process. As a result, they differ significantly from the monochromatic VITABLOCS Mark II.

They allow the characteristic color gradients present in natural dentition to be replicated, both in terms of translucency and intensity, facilitating enhanced integration of the restoration into the residual tooth substance or residual dentition. This effect is particularly strong in VITABLOCS Reallife for highly esthetic anterior restorations. The layer structure is almost identical to that of natural anterior teeth, due to the spherical curved dentine core, which is surrounded by an enamel coat.

VITABLOCS consist of natural feldspar materials, such as potassium feldspar and albite. The advantages of natural feldspar materials - compared to other ceramic materials - are the high purity and the large temperature range during melting. The average particle size of the raw materials used is approx. 4 µm. As a result, the microstructure of the sintered VITABLOCS exhibits very fine crystalline portions, which are homogeneously embedded in the surrounding glass matrix. This fine structure (see illustration 1), combined with the industrial sintering process, is the reason for the good polishing results and the excellent enamel-like abrasion properties of restorations made from VITABLOCS. The fine structure ensures that antagonist teeth are not exposed to harmful "sandpaper" effects.

The high translucency of the VITABLOCS ensures excellent matching of the shade with the residual teeth, so that additional characterization of the shade is not required.

VITABLOCS meet the requirements for good machinability particularly well, which becomes evident during the CAM milling process and reduces tool wear.



**Fig. 1:** SEM picture of the VITABLOCS surface (magnification 1000 x), etched with 5% hydrofluoric acid for 60 seconds. The uniform and highly retentive etching pattern can be seen through the homogeneous distribution of the crystal and glass phase.

**Chemical composition\***

Oxides	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Na <sub>2</sub> O	K <sub>2</sub> O	CaO	TiO <sub>2</sub>	Pigments
% by weight	55–70	20–24	6–10	4–8	<1	<1	<1

\* The values of the chemical composition listed above are dependent on the lot.

**Physical data\***

Properties	Unit of measure	Value
CTE (25–500°C)	10 <sup>-6</sup> · K <sup>-1</sup>	9.4 ± 0.1*
Density	g/cm <sup>3</sup>	2.4 ± 0.5*
Flexural strength (Schwickerath) (ISO 6872)	MPa	136 ± 20
Transformation range	°C	780–790*

\* The technical/physical values are typical measuring results and refer to internal samples and measurement equipment available on site.  
If samples are prepared using different methods and measurement equipment, other measuring results may be obtained.

**Patient target group**

- No restrictions.

**Intended user**

- Dental professionals only: dentist and dental technician

**Indication**

VITABLOCS are indicated for the fabrication of inlays, onlays, partial crowns, full crowns, molar endo-crowns and veneers, provided the following additional criteria are met:

- Normal function
- All preconditions for adhesive bonding using a proven and properly-used functional enamel-dentine adhesive system (total bonding).

Additional finishing with a VITA AKZENT Plus glaze or stain firing should be carried out for large restorations and for individualizing the shade of the surface. See p. 29.

**Intended use**

- VITABLOCS are ceramic materials for dental treatments.

**⚠ Note:**









Information on reporting serious incidents in connection with medical devices, general risks associated with dental treatments, residual risks and (if applicable) short clinical safety and performance reports (SSCPs) can be found at [www.vita-zahnfabrik.com/product\\_safety](http://www.vita-zahnfabrik.com/product_safety)

**Product reliability**

- Information on reporting serious incidents in connection with medical devices, general risks associated with dental treatments, residual risks and (if applicable) short clinical safety and performance reports (SSCPs) can be found at [www.zahnfabrik.com/service\\_risks](http://www.zahnfabrik.com/service_risks).



**Overview of indications of fine-structure feldspar ceramic:**

Indication	Type of material	VITABLOCS Mark II	VITABLOCS TriLuxe forte	VITABLOCS RealLife
 Inlay		●	○	○
 Onlay		●	○	○
 Table top		●	○	○
 Veneer		○	●	●
 Endo-crown*		○	○	○
 Anterior crown		○	●	●
 Posterior crown		○	○	○
 Veneer structure for the VITA Rapid Layer Technology		●	●	—

● recommended    ○ possible    \* molars only

### Contraindication

#### General

- in cases of inadequate oral hygiene
- insufficient preparation results
- insufficient hard tooth substance
- insufficient space available

#### Hyperfunction

- Restorations made of VITABLOCS are contraindicated for patients diagnosed with excessive occlusal function, in particular those who grind and clench their teeth. The use of VITABLOCS restorations for devitalized teeth of patients with hyperfunctions is absolutely contraindicated.

#### Endo-crowns - premolars

- Due to the small adhesive surface and the small root diameters, endo-crowns for premolars are contraindicated.

#### Bridges

- Since VITABLOCS consist of a fine-structure feldspar ceramic with a limited strength of approx. 140 MPa, this material is not suitable for the fabrication of monolithic (mono-ceramic) bridges.

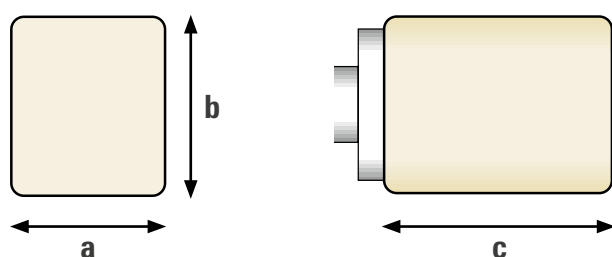
⚠ **Note:** Within the scope of the VITA Rapid Layer Technology, VITABLOCS are used exclusively for the mechanical fabrication of the veneer structure of bridges with up to four units, based on zirconia substructures. Please adhere to the information provided in the Working Instructions, No. 1740.

#### All-ceramic substructures

- VITABLOCS are not suitable for the fabrication of all-ceramic substructures. Accordingly, VITA LUMEX AC must only be used for individualization and not for full veneers of copings made from these materials (see information on page 28).

<b>Fine-structure feldspar ceramic</b>													
Designation	Size in mm (a x b x c)	Content of pack	Shades										
VITABLOCS® Mark II / VITA SYSTEM 3D-MASTER®													
I-10	8 x 10 x 15	5	–	1M1C	1M2C	2M1C	2M2C	2M3C	3M1C	3M2C	3M3C	4M2C	
I-12	10 x 12 x 15	5	0M1C	1M1C	1M2C	2M1C	2M2C	2M3C	3M1C	3M2C	3M3C	4M2C	
I-14	12 x 14 x 18	5	0M1C	1M1C	1M2C	2M1C	2M2C	2M3C	3M1C	3M2C	3M3C	4M2C	
I-40/19*	15.5 x 19 x 39	2	–	1M1C	1M2C	–	2M2C	–	–	3M2C	–	–	
VITABLOCS® TriLuxe forte / VITA SYSTEM 3D-MASTER®													
TF-12	10 x 12 x 15	5	0M1C	1M1C	1M2C	–	2M2C	–	–	2M2C	–	–	
TF-14	12 x 14 x 18	5	0M1C	1M1C	1M2C	–	2M2C	–	–	3M2C	–	–	
TF-14/14	14 x 14 x 18	5	–	–	1M2C	–	2M2C	–	–	3M2C	–	–	
TF-40/19*	15.5 x 19 x 39	2	–	–	1M2C	–	2M2C	–	–	3M2C	–	–	
VITABLOCS® Reallife / VITA SYSTEM 3D-MASTER®													
RL-14/14	14 x 14 x 18	5	0M1C	1M1C	1M2C	2M1C	2M2C	–	–	3M2C	–	–	
VITABLOCS® Mark II / VITA classical A1–D4®													
I-10	8 x 10 x 15	5	A1C	A2C	A3C	A3,5C	A4C	B2C	B3C	C2C	C3C	D3C	
I-12	10 x 12 x 15	5	A1C	A2C	A3C	A3,5C	A4C	B2C	B3C	C2C	C3C	D3C	
I-14	12 x 14 x 18	5	A1C	A2C	A3C	A3,5C	A4C	B2C	B3C	C2C	C3C	D3C	
VITABLOCS® TriLuxe forte / VITA classical A1–D4®													
TF-12	10 x 12 x 15	5	A1C	A2C	A3C	A3,5C	–	–	–	–	–	–	
TF-14	12 x 14 x 18	5	A1C	A2C	A3C	A3,5C	–	–	–	–	–	–	
TF-14/14	14 x 14 x 8	5	A1C	A2C	A3C	A3,5C	–	–	–	–	–	–	

\* for the Rapid Layer Technology.





**VITABLOCS® Mark II in 10 VITA SYSTEM 3D-MASTER® shades**

0M1C	1M1C	1M2C	2M1C	2M2C	2M3C	3M1C	3M2C	3M3C	4M2C

**VITABLOCS® Mark II  
in 10 VITA classical A1–D4® shades**

A1C	A2C	A3C	A3,5C	A4C	B2C	B3C	C2C	C3C	D3C

**VITABLOCS® TriLuxe forte  
in five VITA SYSTEM 3D-MASTER® shades**








0M1C	1M1C	1M2C	2M2C	3M2C







**VITABLOCS® TriLuxe forte  
in four VITA classical A1–D4® shades**

A1C	A2C	A3C	A3,5C

**VITABLOCS® RealLife  
in six VITA SYSTEM 3D-MASTER® shades**

0M1C	1M1C	1M2C	2M1C	2M2C	3M2C

	Dental practice	Dental laboratory	VITA products	
	Shade determination - tooth	—	VITA Easyshade V VITA Toothguide 3D-MASTER VITA Linearguide 3D-MASTER	
	Preparation optional Shade determination - prepared tooth	—	—	
	Taking an impression	Fabricating the model	—	
	—	CAD/CAM process	VITABLOCS Mark II VITABLOCS TriLuxe forte VITABLOCS RealLife	
	—	Finishing, checking on the model	—	

	Dental practice	Dental laboratory	VITA products	
	—	Option: shade characterization  Individualizing/glazing	VITA AKZENT Plus stains/glaze material  VITA LUMEX AC CUT-BACK KIT (pages 19-36)	
	Adhesive bonding  Ceramic etching Silanization Enamel/dentine etching adhesive system bonding composite Oxygen protection gel	—	VITA ADIVA FULL-ADHESIVE LUTING SET (pages 36-39)	
	Fitting fine morphological adjustments Occlusion and articulation final polishing	—	VITA KARAT diamond polishing paste extraoral (page 48)	



Proper shade determination is the key to a restoration with a natural and esthetic appearance. The tooth shade of the non-prepared tooth or the adjacent teeth is determined after tooth cleaning.

Note that the final shade result is determined primarily by the shade of the prepared tooth stump and the VITABLOCS shade.



The VITA Toothguide 3D-MASTER and the VITA classical A1–D4 shade guide\* are suitable for determining the shade and for selecting the corresponding VITABLOCS.



If VITABLOCS, TriLuxe forte or RealLife are used for the fabrication of the restoration, the VITA Toothguide 3D-MASTER or the VITA classical A1–D4 shade guide\* should preferably be used for selecting the correct shade, since the basic shade printed on the blocks corresponds to the shade of the respective shade tab.



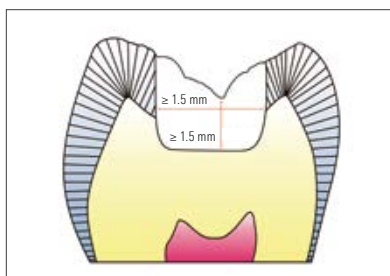
The "Block mode" of VITA Easyshade V enables digital determination of the block shade to be selected.

\*Please observe the information on page 22.

**Note:** For additional information on the preparation of all-ceramic restorations, please read our detailed brochure "Clinical Aspects of All-Ceramics" No. 1696.

### Inlays

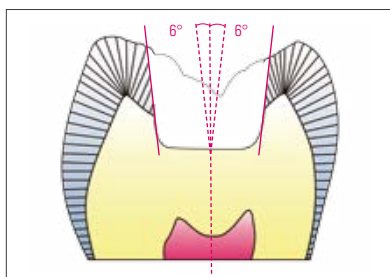
Ceramic layer thickness below the lowest point of the fissure: at least 1.5 mm.  
 Thickness of ceramic in the area of the isthmus: at least 1.5 mm.  
 Box-shaped preparation without resilient margins is recommended.  
 Round cavity segments, in particular at the bottom of the cavity, should be prepared and sharp edges must be avoided.



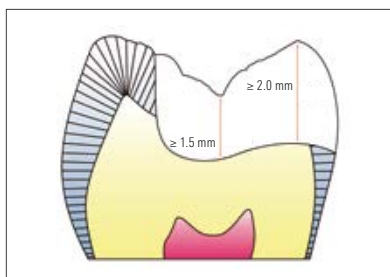
Ceramic layer thickness

Occlusal: **at least 1.5 mm**

Area of the isthmus: **at least 1.5 mm**



Opening angle >10°

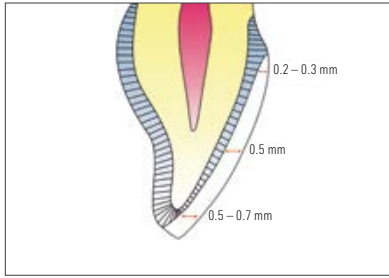


### Onlays

Ceramic layer thickness

Occlusal: **at least 1.5 mm**

Area of cusps: **at least 2.0 mm**



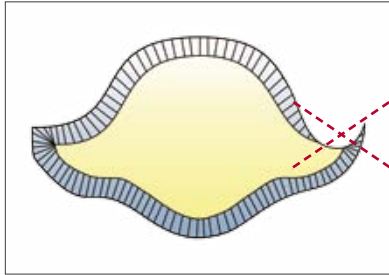
### Veneers

Ceramic layer thickness

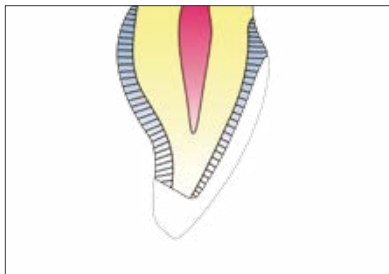
Incisal: **0.5 - 0.7 mm**

Labial: **0.5 mm**

Cervical: **0.2 - 0.3 mm**

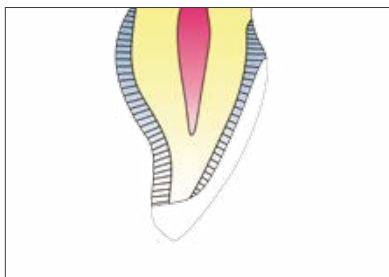


Gutter-shaped preparations should be avoided

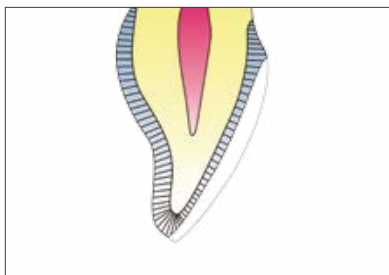


### Types of incisal veneer preparation

Incisal reduction with bevelling in the palatal direction (incisal path of insertion)



Incisally reduced, but labially inclined preparation margin (buccal path of insertion)



The preparation border should taper towards the incisal edge if at least 1.5 mm of tooth substance remains

### **Crowns**

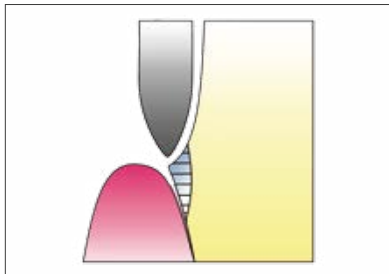
A chamfer or shoulder with rounded inner angle should be prepared in the case of all-ceramic crowns. The goal should be a circumferential cutting depth of one millimeter. The vertical preparation angle should be at least 3°. All transitions from the axial to the occlusal or incisal surfaces should be rounded. Homogeneous, smooth surfaces are recommended. A wax-up and the fabrication of silicone keys to control the preparation are helpful for the diagnosis and the clinical application (defect-oriented preparation).

### **Location of the preparation border**

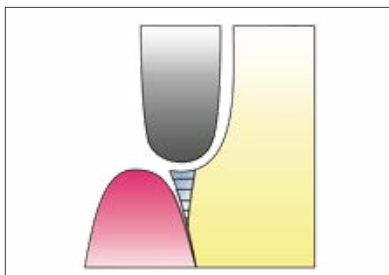
In light of periodontal-physiological considerations, a subgingival preparation border should be prepared, if possible.

If esthetic aspects are more important, a preparation border located in the paramarginal area may be required.

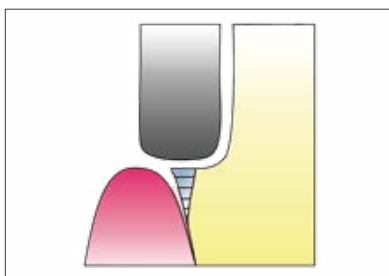
A subgingival preparation border should generally be avoided.



Chamfer preparation



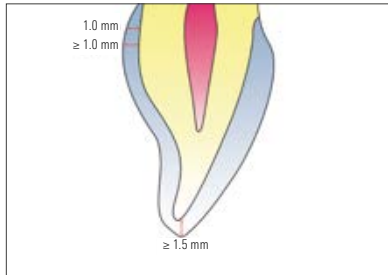
Accentuated chamfer preparation



Shoulder preparation or step with rounded inner edge

### Ceramic layer thickness for crowns

To ensure the clinical success of crowns fabricated using VITABLOCS, the following values for ceramic layer thickness must be observed:



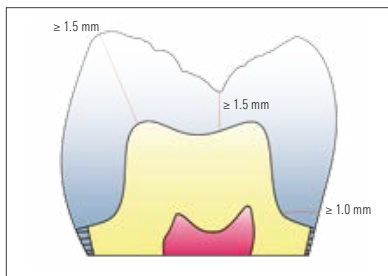
#### Anterior crowns

Ceramic layer thickness

Incisal: **at least 1.5 mm**

Circumferential: **at least 1.0 mm**

Crown margin: **1.0 mm**



#### Posterior crowns

Ceramic layer thickness

Area of the cusps: **1.5 mm - 2.0 mm**

Occlusal: **at least 1.5 mm**

Circumferential: **at least 1.0 mm**

Crown margin: **1.0 mm**



### CAD design, milling

Detailed information can be found in the documentation of your CAD/CAM system.



The lug is cut off using a diamond bur or coarse, flexible discs.



Then the proximal surfaces are polished. Use flexible discs or similar tools (use caution and adjust low speed) to remove irregularities or unevenness at the margins.

Then the restoration is carefully fitted on the model, if present.

**⚠ Note:** Restorations made of VITABLOCS fine-structure feldspar ceramic must not be reworked using tungsten carbide instruments, since such instruments produce microcracks and damage the ceramic. The following must be observed:

- Use only fine-grit diamond abrasive tools (40 µm) for contouring.
- It is recommended to polish with polishing brushes and VITA Karat diamond polishing paste.
- When reworking, cool with water whenever possible and exert only slight pressure.

### Characterization/Individualization of the shade

In esthetically demanding cases, the shades of restorations made of VITABLOCS can be characterized/individualized.

Generally, two different concepts can be used:

- Characterization with VITA AKZENT Plus stains (see page 20)
- Individualization with porcelains of VITA LUMEX AC veneering material (see page 28)



### Necessary firing equipment

A furnace, such as VITA SMART.FIRE, VITA VACUMAT 6000 M or VITA V60 i-Line, is required for characterizing with stains and glaze material and for individualizing with VITA LUMEX AC.



VITA SMART.FIRE is a firing unit developed specifically for the needs of chairside milling dentists for the crystallization, glaze, stain and corrective firing of all common chairside materials. Selecting the materials and starting the program are done in one simple step. Ideally, customized material-specific programs are already pre-installed for simple firing. Thanks to its compact design, the space saving firing unit is simple and convenient to set up.



The VITA VACUMAT 6000 M is a fully-automatic, microprocessor-controlled firing unit. The firing unit is ideal for all dental ceramic firing requirements. The furnace impresses with superb quality and esthetics, and offers outstanding firing results, user safety and convenience. The captivating design, which is available in one of six high-quality contemporary finishes, is a real eye-catcher for your work area. Freely selectable control units, such as VITA vPad comfort or VITA vPad excellence, can be connected to the furnace.



With the dental ceramic furnace VITA V60 i-Line, VITA consistently meets the requirements for quality and durability. VITA V60 i-Line emphasizes two core aspects: outstanding long-term firing results, as well as maximum ease of use.

**Learn more!**  
[www.vita-zahnfabrik.com](http://www.vita-zahnfabrik.com)



### Characterization with VITA AKZENT Plus stains

Anterior restorations can be perfectly characterized with stains, in particular if discoloration of the surface needs to be reproduced. Teeth without highly translucent areas and with minor internal changes are particularly suitable.

**Note:** A layer of stain which is too thick, inhibits the penetration of light and results in an unnatural appearance.

When using the new VITA AKZENT Plus pastes, which feature excellent ceramic translucency, the final shade effect in the wet condition is only evident after firing, and not immediately after applying the stains to the milled VITA Mark II block.

Systems in two different forms are available for characterizing with ceramic stains:



#### 1. VITA AKZENT Plus PASTE KIT

with 19 stain pastes (see shade table, page 49) for simple and fast surface characterization in the dental practice:

- ready-to-use pastes with uniform consistency and homogeneous pigmentation for fast application
- can be mixed with one another to achieve individual shade effects
- can be diluted or mixed again



#### 2. VITA AKZENT Plus POWDER KIT

with 19 stain powders (see shade table, page 49) for surface characterization:

Consistency can be adjusted by adding different quantities of liquid.

- The powder materials are perfectly suitable for mixing with the ceramic layering materials (add max. 5 % of stain powder) and for intensifying the shade of these materials.
- The AKZENT Plus materials can all be mixed with one another.
- Unlimited flexibility and cost-effectiveness, since materials have unlimited shelf life.

**Note:** To save time, stains firing and glaze firing can be carried out simultaneously when using VITA AKZENT Plus PASTE or VITA AKZENT Plus POWDER materials.



**Step-by-step procedure based on the example of VITA AKZENT Plus EFFECT STAINS\***

Crown made from a VITABLOC block immediately after milling.  
The lug is cut off using a diamond grinding tool or a flexible disk.



The crown is fitted on the model, if present and necessary.  
Fine diamond tools are suitable for finishing. If possible, the ceramic should be ground when wet.

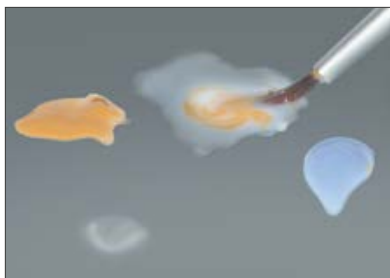


A texture marker can be applied to analyze the shape and surface texture, which can be optimized by grinding later on.

**⚠ Note:** The texture marker needs to be completely removed with steam prior to any firing process, to avoid discoloration on the ceramic.



Grinding particles and grease are removed from the finished crown using steam or alcohol. A pair of tweezers (e.g., Smart Clip, Hammacher) or pick-up sticks (Hager & Werken) are suitable to hold the object.



The selected AKZENT Plus EFFECT STAIN POWDER stain and AKZENT Plus POWDER FLUID are mixed to obtain the desired consistency and intensity.

Additionally, AKZENT Plus FINISHING AGENT can be added to adjust the intensity.

\* Please observe the information in the Working Instructions VITA AKZENT Plus, No. 1925.



A thin transparent layer of stain is applied to the restoration.

First the stain is applied to the proximal surfaces.



A distinctive incisal edge effect can be achieved through the use of VITA AKZENT Plus EFFECT STAIN ES 11 (blue) and ES 12 (grey-blue). Additional shade characteristics can be imitated with suitable stain mixtures. A comparison with a shade sample (tooth) from the VITA Toothguide 3D-MASTER or the VITA classical A1–D4 shade guide can be used to check the result. See the table on pages 23-24.



The characterized restoration is placed on the firing tray and fired in the VITA VACUMAT.

Firing under vacuum is not required for glazing.

The figure on the left shows the restoration after the first firing.



A thin, opaque layer of glaze material (VITA AKZENT Plus GLAZE) is applied in the next step. During the application, minor shade corrections can be integrated into the glaze material.

Optional:

Stain firing can be carried out together with glaze firing when using AKZENT Plus GLAZE. The restoration is coated with VITA AKZENT Plus GLAZE and then characterized with VITA AKZENT Plus stains.



Additionally, mechanical polishing of the glazed restoration can be carried out. Examples of what can be used for this purpose include Dia-Glaze (from Yeti) or VITA KARAT diamond polishing paste (for extraoral use only).

- Since VITABLOCS are only available in a limited number of shades, the classification table (see page 26) can be used to reproduce the shades that are not available as a block with VITA AKZENT Plus.
- Please note that the monochromatic VITABLOCS Mark II and the multichromatic VITABLOCS TriLuxe forte and Reallife are not layered like shade sample teeth, and because of this, the shades of the 3D-MASTER Toothguide or VITA classical A1–D4 shade guide and the corresponding block are not identical. This is indicated by the additional letter "C" following the shade designation on the block.

⚠ **Note:** Do not apply excessively thick layers of stain; in cases of uncertainty, two stain fixation firings should be carried out.

- The correct selection of the block shade to reproduce the natural tooth shade of the patient is very important in this system. The milled restoration is the basic shade carrier and essential for the final impression of the stained restoration. Fine nuances of the shade are achieved by staining.

## VITA SYSTEM 3D-MASTER

### Classification table for shade characterization of VITABLOCS Mark II with VITA AKZENT Plus PASTE

Based on the information in the table and in order to mix the materials, the respective quantities are added next to each other onto the mixing tray using the brush, and then mixed to obtain the final paste. In this way, good individual shade reproduction is achieved.

- VITA AKZENT Plus BODY STAINS should always be applied starting from the neck, to a **maximum of two thirds of the tooth length, towards the incisal edge.**
- As a result, the pure block shade forms the undercoat of the incisal edge. These are the precondition requirements to achieve a good translucent effect with the use of EFFECT STAINS incisal shades.
- The ratios of the individual stain proportions depend on the wall thickness of the crown or the veneer. It is recommended to hold the shade sample tab from the VITA SYSTEM 3D-MASTER Toothguide next to the object when applying the shade, to reproduce and match the shade.

Lightness group	VITA SYSTEM 3D-MASTER Toothguide	Shade of the VITABLOCS block	Mixture for characterization
0	0M1	0M1C	only GLAZE glaze material, applied thinly
1	1M1	1M1C	BS 5 ES 12 / ES 13
1	1M2	1M2C	2/5 BS 01 + 2/5 BS 03 + 1/5 ES 13, ES 12
2	2L1,5	2M1C	2/4 BS 04 + 1/4 BS 02 + 1/4 BS 01 + small quantity of ES 13
2	2L2,5	2M2	2/5 BS 02 + 2/5 BS 04 + 1/5 BS 03
2	2M1	2M1	3/4 BS 05 + 1/4 ES 13 + small quantity of ES 07
2	2M2	2M2	1/2 BS 03 + 1/2 BS 04, incisal 1/2 ES 12 + 1/2 ES 13
2	2M3	2M3C	2/3 BS 02 + 1/3 BS 03 + 1 brush tip each of ES 04 and ES 05, stain must be applied thinly
2	2R1,5	2M1	3/5 BS 05 + 2/5 BS 03 + 1 brush tip of ES 13
2	2R2,5	2M2C	2/5 BS 05 + 2/5 BS 03 + 1/5 BS 02
3	3L1,5	3M1C	2/5 BS 04 + 2/5 BS 05 + 1/5 ES 07 observe block shade
3	3L2,5	3M2	2/5 BS 04 + 2/5 BS 02 + 1/5 ES 07 observe block shade
3	3M1	3M1C	2/4 BS 05 + 1/4 ES 07 + 1/4 ES 13 + 1 brush tip of ES 06
3	3M2	3M2C	2/4 BS 05 + 1/4 BS 03 + 1/4 ES 07 + (1 brush tip of ES 06, if a more intensive shade is required)
3	3M3	3M3C	2/4 BS 02 + 1/4 BS 03 + 1/4 BS 04 + 1 brush tip of ES 07
3	3R1,5	3M1C	4/5 BS 05 + 1/5 ES 07 + 1 small quantity of ES 06 each
3	3R2,5	3M2C	2/4 BS 05 + 1/4 BS 03 + 1/4 ES 07
	Incisal shade		Mixture of ES 12, ES 13 and ES 10. Applies to all shades, to achieve a translucent effect

**VITA classical**
**Classification table for shade characterization of VITABLOCS Mark II with VITA AKZENT Plus PASTE**

Based on the information in the table above and in order to mix the materials, the respective quantities are added next to each other onto the mixing tray using the brush, and then mixed to obtain the final paste. In this way, good individual shade reproduction is achieved.

**⚠ Note:** VITA AKZENT Plus BODY STAINS should always be applied starting from the neck, **across the entire length of the tooth**, towards the incisal edge.

Tooth shade of the patient	Shade of the VITABLOCS block	Mixture for characterization
A1	<b>A1C</b>	4/5 BS 04 + 1/5 BS 03; <b>Incisal:</b> 1/2 ES 12 + 1/2 ES 13; <b>Mamelons:</b> ES 03
B1		2/3 BS 04 + 1/3 BS 02; <b>Incisal:</b> 2/3 ES 13 + 1/3 ES 12; <b>Mamelons:</b> ES 2 or 1/2 ES 2 + 1/2 ES 03
C1		3/5 BS 04 + 1/5 ES 7 + 1/5 ES 13; <b>Incisal:</b> ES 13 unmixed or 1/2 ES 7 + 1/2 ES 02
A2	<b>A2C</b>	3/5 BS 05 + 1/5 BS 02 + 1/5 BS 03; <b>Incisal:</b> 2/3 ES 02 + 1/3 ES 12; <b>Effects:</b> ES 02 and ES 05
A3	<b>A3C</b>	2/4 ES 05 + 1/4 BS 02 + 1/4 BS 03 + 1 small quantity of ES 6; <b>Incisal:</b> 2/3 ES 13 + 1/3 ES 12; <b>Effects:</b> with mixture of base shades or ES 02 and ES 06
A3,5	<b>A3,5C</b>	1/2 BS 05 + 1/2 BS 04 + 1 large quantity each of BS 02 and BS 03 in equal proportions, ES 07 and 1 small quantity of ES 13; <b>Incisal:</b> ES 13 + 1 brush tip of ES 01 white + mix with small quantity of glaze material. Brightens the incisal area slightly in the case of a monochromatic underlying layer.
A4	<b>A4C</b>	2/4 BS 05 + 1/4 BS 04 + 1/4 ES 07 + 1 brush tip of BS 03; <b>Incisal:</b> ES 12 + 1 brush tip of ES 01 white + mix with small quantity of glaze material; brightens the monochromatic underlying layer. If an increased grey value is intended: add small quantity of ES 13 to the mixture
B2	<b>B2C</b>	1/2 BS 03 + 1/2 BS 04, <b>Incisal:</b> 1/2 ES 12 + 1/2 ES 13
B3	<b>B3C</b>	2/3 BS 02 + 1/3 BS 03 + 1 brush tip each of ES 04 and ES 05. Generally, apply the shade very thinly, since a large content of the base shade is already found in the underlying layer; <b>Incisal:</b> Mix 1/2 ES12 and 1/2 ES 13 with some glaze material + 1 small quantity of ES 01 white if a somewhat brighter shade is to be achieved.
C2	<b>C2C</b>	3/4 BS 04 + 1/4 ES 07 <b>Incisal - variation 1:</b> Mix some glaze material with a very small quantity of ES 01 and use as incisal. This creates a brighter shade; <b>Incisal - variation 2:</b> Mix ES 13 with 1 brush tip of ES 01 white and some glaze material; this will lighten less and a subtle greyish shade is obtained
C3	<b>C3C</b>	2/3 BS 04 + 1/3 ES 07 + 1 brush tip of BS 02 and a very small quantity of ES 14; <b>Incisal:</b> Variation 1 and 2 as for shade C2
C4	<b>C3C</b>	2/4 ES 07 + 1/4 BS 04 + 1/4 BS 05 + 1 brush tip each of BS 03 and ES 14
D3	<b>D3C</b>	2/4 BS 05 + 1/4 BS 04 + 1/4 ES 07 (+ 1 brush tip of ES 06 if a more intensive shade is required)



**Firing of VITA AKZENT Plus in the VITA VACUMAT**

	Predry. °C	→ min	↗ min	↗ °C/min	approx. temp. °C	→ min	VAC min
Stains fixation firing	500	4.00	4.23	80	850	1.00	–
Glaze firing - VITA AKZENT Plus POWDER and SPRAY	500	4.00	5.37	80	950	1.00	–
VITA AKZENT Plus PASTE	500	6.00	5.37	80	950	1.00	–

**Firing of VITA AKZENT Plus in the VITA SMART.FIRE**

	Predry. °C	→ min	↗ min	↗ °C/min	approx. temp. °C	→ min	VAC min
Stains fixation firing	480	4.00	4.37	80	850	1.00	–
Glaze firing - VITA AKZENT Plus POWDER and SPRAY	480	4.00	5.52	80	950	1.00	–
VITA AKZENT Plus PASTE	480	6.00	5.52	80	950	1.00	–

⚠ **Note:** The latest firing parameters are available in the firing units.



Optional:

**VITA AKZENT Plus GLAZE SPRAY / GLAZE SPRAY LT**

The VITA AKZENT Plus GLAZE SPRAY can be used as an alternative for glazing with VITA AKZENT Plus GLAZE material or VITA AKZENT GLAZE PASTE.

⚠ **Note:** VITA AKZENT GLAZE LT SPRAY, GLAZE LT PASTE or GLAZE LT POWDER must always be used, if VITA LUMEX AC was previously used for individualization.



VITA AKZENT® Plus GLAZE SPRAY is a spray-on ceramic powder that can be easily applied and is suitable for glazing all-ceramic and metal ceramic restorations, such as inlays, onlays, veneers, crowns and bridges with a sintering temperature of ≥ 800°C.

Stains firing can be carried out together with glaze firing when using VITA AKZENT Plus GLAZE SPRAY.

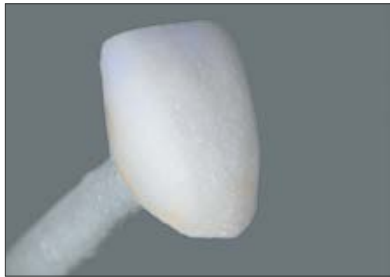
⚠ **Note:** To avoid spraying onto the adhesive surfaces of the restoration (e.g., basal surface of inlays, inner surfaces of crowns and veneers), it is recommended to use VITA Firing Paste to prepare an individual firing tray. As a result, an inaccurate fit is avoided. See working instructions on page 31. In addition, glaze material can not be adequately etched with hydrofluoric acid.



⚠ **Note:** Shake VITA AKZENT Plus GLAZE/GLAZE LT SPRAY well prior to use (approx. 1 min.). The mixing ball needs to be heard clearly.

Apply VITA AKZENT Plus GLAZE/GLAZE LT SPRAY to the stain at a distance of approx. 10 - 15 cm to the restoration to ensure uniform and complete coverage.

Spray intermittently to achieve optimum results.



Let the solvent evaporate completely while spraying to be able to control the thickness of the glaze layer that has already been applied. A whitish (GLAZE, GLAZE LT) coat indicates a uniform layer. If required, spray again.

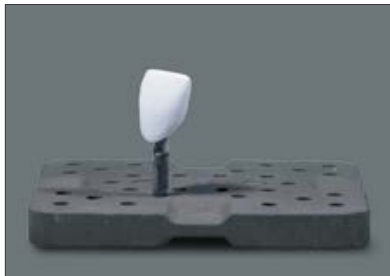
⚠ **Note:** For faster evaporation, a hair dryer may be used.



If spraying several restorations, the bottle needs to be shaken between the individual spraying processes.

Best results are obtained with two to three layers of glaze material.

Place the restoration on a firing tray.



⚠ **Important information:** Since dust is formed during spraying, always wear a face mask and safety goggles. Additionally, it is recommended to use an extraction unit.



#### Firing of VITA AKZENT Plus GLAZE SPRAY in the VITA VACUMAT

Predry. °C	→ min	↗ min	↗ °C/min	approx. temp. °C	→ min	VAC min
500	4.00	5.37	80	950	1.00	–

#### Firing of VITA AKZENT Plus GLAZE SPRAY in the VITA SMART.FIRE

Predry. °C	→ min	↗ min	↗ °C/min	approx. temp. °C	→ min	VAC min
480	4.00	5.52	80	950	1.00	–

⚠ **Note:** The latest firing parameters are available in the firing units.



Restoration after characterization of the shade

### Individualization of anterior crowns and veneers with VITA LUMEX AC

VITA LUMEX AC is a leucite-reinforced, glass-ceramic veneering system for veneering all common all-ceramic substructure materials (zirconia, lithium disilicate and feldspar ceramics) and for the fabrication of restorations without a substructure (e.g., veneers).



- VITABLOCS Mark II
- VITABLOCS TriLuxe forte
- VITABLOCS RealLife



The VITA LUMEX AC CUT-BACK-KIT (Prod. No. BLCBK) with selected VITA LUMEX AC materials and accessories is available especially for individualizing partial areas.

VITA LUMEX® AC is a ceramic for all variations in natural dentition, enabling highly individual, age-appropriate prosthetic restorations.

- ENAMEL materials for the reproduction of the play of shade and light in the tooth enamel
- OPAL TRANSLUCENT- and TRANSLUCENT materials for the reproduction of opal effects
- Translucent materials are universally applicable translucent enamel effect materials for the reproduction of shade effects in the incisal area

Please observe the information in the corresponding Working Instructions VITA LUMEX AC No. 10605.

### Contraindication

VITA LUMEX AC must not be used for direct veneers on copings made from VITABLOCS, since these blocks are not indicated for the fabrication of framework structures.

**⚠ Important information:** To ensure clinical success, the milled restorations may only be reduced prior to individualizing with VITA LUMEX AC, if minimum values for wall thickness in restorations are observed. See information on page 7 and on pages 13-16. Reduction of the restorations can also be carried out with the CAD software.

### Veneer

The thickness of a milled veneer should not be less than 0.5 mm to avoid distortion of the restoration when firing on VITA LUMEX AC (see page 15).



### Step-by-step procedure based on the example of an anterior crown

Milling of the restoration.

The lug is removed with a diamond-coated milling tool. Any early contacts are ground off carefully from the inner side of the veneer. Mesial and distal contacts are checked.



Place the crown on the working model immediately after the grinding process, and prior to the cut-back process.



### Pretreatment

To obtain sufficient space for layering on the enamel, the incisal area is reduced with a diamond milling instrument.

**⚠ Important information:** Restorations made of VITABLOCS fine-structure feldspar ceramic must not be reworked using tungsten carbide instruments, since such instruments produce microcracks and damage the ceramic. It is recommended to exert low pressure and use sufficient water cooling.

In the case of morphological reduction, pronounced undercuts must be avoided, as they weaken the base ceramic.

The minimum thickness of the basic material must be adhered to (see page 13).



Remove any grinding particles from the veneer with steam or alcohol.



**Optional:**

Characterization with VITA AKZENT Plus stains

VITA AKZENT Plus stains can be used for external characterization of restorations made from VITABLOCS, and after morphological reduction, stains can also be integrated into fissures and mamelon structures (see firing table) before starting actual layering with VITA LUMEX AC materials. Enhanced shade effect from the depth is achieved, especially in cases of limited space.



**"Stains fixation firing"**

**Recommended firing in the VITA VACUMAT**

Predry. °C	→ min	↗ min	↗ °C/min	approx. temp. °C	→ min	VAC min
500	4.00	4.22	80	850	1.00	–

**Recommended firing in the VITA SMART.FIRE**

Predry. °C	→ min	↗ min	↗ °C/min	approx. temp. °C	→ min	VAC min
480	4.00	4.37	80	850	1.00	–



⚠ **Note:** The latest firing parameters are available in the firing units.



⚠ **Important information:** Before applying the VITA LUMEX AC materials, modelling liquid (VITA LUMEX AC MODELLING LIQUID) should be applied to the reduced restoration to achieve adequate wetting.

Failure to do so may result in lifting the ceramic material from the base structure.



Application of incisal characterization with VITA LUMEX AC ENAMEL and/or TRANSLUCENT materials.

**Enamel classification**

**VITA SYSTEM 3D-MASTER**

Block shade	0M1C	1M1C	1M2C	2M1C	2M2C	2M3C	3M1C	3M2C	3M3C	4M2C
ENAMEL	light	light	light	light	light	light	light	light	light	intense

**VITA classical A1–D4**

Block shade	A1C	A2C	A3C	A3,5C	A4C	B2C	B3C	C2C	C3C	D3C
ENAMEL	light	light	light	medium	medium	medium	medium	medium	light	medium

**⚠ Note:** ENAMEL light is intended to achieve a translucent effect of the incisal edge. If a higher opacity is desired, TRANSLUCENT light-blonde, for example, can be used for lighter tooth shades, and TRANSLUCENT smokywhite for bleach shades.



The layered restoration ready for "individualization firing."

Place the individualized restoration on a suitable firing tray.

VENEER: place on fibrous pad. When using a fibrous pad, the final firing temperature needs to be raised by approx. 10-20°C.

**1. Individualization firing with VITA LUMEX AC**

**Recommended firing - first dentine firing**

Pre-dry °C	→ min.	↗ °C/min.	approx. temp. °C	→ min.	VAC
400	6.00	50	760	1.00	on



Restoration after individualization firing

### Finishing

Finish the restoration. Mechanical polishing with diamond polishing paste (VITA KARAT).

#### ⚠ Important information:

In case of dust formation, use an extraction system or wear a face mask. Additionally, protective goggles must be worn when grinding the fired ceramic.



If required, the entire restoration can be coated with VITA AKZENT Plus GLAZE LT SPRAY, AKZENT Plus GLAZE LT PASTE or with AKZENT Plus GLAZE LT POWDER.

To achieve uniform gloss, the restorations should be polished with rubber polishers prior to glaze firing.



Completed restoration on the model after glaze firing.



A texture marker can be applied to analyze the shape and surface texture, which can be optimized by grinding later on.

⚠ **Note:** The texture marker needs to be completely removed with steam prior to any firing process to avoid discoloration on the ceramic.

**Recommended firing**

	Predry. °C	→ min	↗ °C/min	approx. temp. °C	→ min	↘ °C	→ min	Vac.
Stains fixation firing VITA AKZENT Plus	500	4.00	80	850	1.00	–	–	–
Glaze firing - VITA AKZENT Plus	500	4.00	80	920	1.00	–	–	–
Glaze firing - VITA AKZENT Plus GLAZE SPRAY	500	6.00	80	920	1.00	–	–	–
Glaze firing - VITA AKZENT Plus GLAZE LT POWDER	500	4.00	80	780	1.00	–	–	–
Glaze firing - VITA AKZENT Plus GLAZE LT SPRAY	500	6.00	80	780	1.00	–	–	–
Glaze firing - VITA AKZENT Plus GLAZE LT PASTE	500	6.00	80	780	1.00	–	–	–
First individualization firing with VITA LUMEX AC	500	6.00	50	760	1.00	500*	–	on
Second individualization firing with VITA LUMEX AC	500	6.00	50	755	1.00	500*	–	on
Glaze firing VITA AKZENT Plus with VITA LUMEX AC	500	4.00	50	750	1.00	500*	–	–
Glaze firing VITA AKZENT Plus GLAZE SPRAY with VITA LUMEX AC	500	6.00	50	750	1.00	500*	–	–
Glaze firing VITA AKZENT Plus GLAZE LT POWDER with VITA LUMEX AC	500	4.00	50	750	1.00	500*	–	–
Glaze firing VITA AKZENT Plus GLAZE LT SPRAY with VITA LUMEX AC	500	6.00	50	750	1.00	500*	–	–
Glaze firing VITA AKZENT Plus GLAZE LT PASTE with VITA LUMEX AC	500	8.00	50	750	1.00	500*	–	–
Corrective firing with VITA LUMEX AC COR	500	4.00	50	725	1.00	500*	–	on

\*) Long-term cooling down to the corresponding temperature is recommended for the respective last planned firing cycle of the veneering ceramic. The lift position for VITA VACUMAT furnaces should be > 75%. The items to be fired must be protected from a direct supply of air.



When using dental ceramics, the firing result largely depends on the individual firing procedure of the user, including, among other aspects, the type of furnace, the location of the temperature sensor, the firing tray and the size of the object during the firing cycles.

Our application recommendations for the firing temperatures (regardless of whether they have been provided orally, in writing or in the form of practical instructions), are based on extensive experience and tests. The user, however, should consider this information only as a reference.

If the surface quality or the degree of transparency or glaze does not correspond to the firing result that is achieved under optimum conditions, the firing procedure must be adjusted accordingly. The critical factors for the firing procedure are not the firing temperature indicated on the furnace display, but the appearance and the surface quality of the firing object after firing.



Explanation of Symbols	
<b>Pre-dry °C</b>	Start temperature
→ <b>min.</b>	Predrying time in minutes, closing time
↗ <b>°C/min.</b>	Heating time in minutes, temperature rise rate in degrees Celsius per minute
<b>approx. temp °C</b>	End temperature
→ <b>min.</b>	Holding time for end temperature
↘ <b>°C</b>	Long-term cooling
→ <b>min.</b>	Hold time for long-term cooling
<b>Vac. min</b>	Vacuum holding time in minutes

## VITA LUMEX AC CUT-BACK KIT

Prod. No. BLCBK

Contents:

- 5 x ENAMEL
- 8 x TRANSLUCENT
- 3 x OPAL TRANSLUCENT
- 2 x CORRECTIVE

### Adhesive bonding

A variety of adhesive bonding systems are available on the market today. The information given below describes a possible procedure.

Correct processing and adherence to the manufacturer's instructions are essential for the clinical success of all systems.

Light- or dual-curing fine-hybrid composites, such as VITA ADIVA F-CEM, and a proven and properly used functional enamel-dentine adhesive system (Total Bonding) should be used for adhesive bonding (cementation) of restorations made of VITABLOCS. The ultrasonic insertion method or preheated composite can be used for stronger composite materials.

**The self-adhesive composite VITA ADIVA-S-CEM or RelyX Unicem 2 (3M ESPE) can be used exclusively for crowns.**

**⚠ Note:** Temporary bonding is not permitted for restorations made of silicate ceramic, such as VITABLOCS, since adequate stabilization is not ensured. Risk of fracture!

Essentially, there are no differences in the protocols for adhesive cementation of inlays, crowns and veneers. However, a few special aspects should be considered for adhesive cementation of veneers and crowns:

- Dual-curing composite cements should not be used for thin veneers, since these materials may cause a slight change in color (yellow shade) after curing. Because of this, a light-curing composite is preferable.
- A microbrush glued to the veneer using a light-curing bonding material can be used as a holder.
- Fixing the veneer with a finger allows more uniform distribution of pressure during adhesive placement.
- Adhesive bonding of crowns should preferably be performed using a more flowable, dual-curing composite (depending on the thickness of the layering).





**Step-by-step description based on the example of an inlay**

**Conditioning the tooth substance**

Try-in of the restoration; check the fit visually and by tactile means.



Spray into the cavity for 30 sec., and blow dry for 20 sec.  
Drying (rubber dam) or placement of cotton rolls,  
dry-angles, sublingual roll



Etch tooth substance with VITA ADIVA TOOTH-ETCH  
(phosphoric acid gel, 35%) for 20 sec.

Spray for 20 sec. and dry.  
Control: etched surface must be white opaque.



Application of an adhesive system (such as VITA ADIVA T-BOND).  
Agitate VITA ADIVA T-BOND I/II for 30 sec., gently dry for 15 sec.  
and harden for 20 sec. Then agitate again for 30 sec., gently dry  
for 15 sec. and harden for 20 sec.



**Conditioning the restoration**

Use ethanol to degrease the restoration before it is seated.

Apply VITA ADIVA CERA-ETCH (hydrofluoric acid gel, 5%) to the inner surfaces.

Etching time: 60 sec.

| ⚠ **Note:** Please read the safety information on pages 50-51.



Completely remove any remaining acid by using water spray (60 sec) or clean in the ultrasonic bath. Then dry for 20 sec.  
Do not brush clean, as there is a risk of contamination! After drying, the etched surfaces have a white opaque appearance.



Apply silane (VITA ADIVA C-PRIME) to the etched surfaces and then dry carefully. Allow to evaporate completely.



**Insertion**

Luting composite (e.g., VITA ADIVA F-CEM) is applied thinly into the cavity and the restoration is carefully placed in situ.

Use a spatula to remove excess composite.

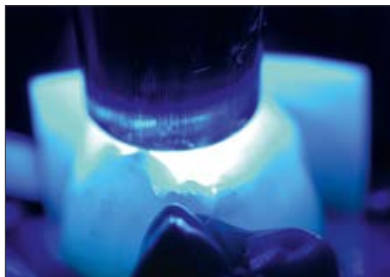


Optional:

Seat the restoration by means of ultrasonic insertion.



Application of oxygen protection gel (e.g., VITA ADIVA OXY-PREVENT) to the cervical margins to prevent oxygen inhibition.



Light curing: buccal and oral: at least 20 sec., occlusal: at least 20 sec. (for each proximal surface)

Use a powerful and properly functioning polymerization light. Generally, second generation LED polymerization units with 5 W LED chips and a lamp power of > 1,000 mW/cm<sup>2</sup> are suitable, such as:

- Demi plus (Demetron)
- PenCure (Morita)
- Bluephase (Ivoclar Vivadent)
- G-Light (GC)
- SPEC 3 LED (Coltène Whaledent)
- Valo LED (Ultradent)



Remove excess with file or fine diamond abrasives (max. 40 µm).



Flexible abrasive discs are used for polishing proximal surfaces. Thin, coated acrylic discs have proven to be the most suitable.



The shade of the completed restoration matches the shade of adjacent teeth. Immediately after adhesive insertion, the teeth are often still dry and the restorations may initially appear to be a little too dark.

### Fine morphological adjustments of the occlusion

The occlusion should be completely free of interferences, without any premature contacts in static and dynamic occlusion. The marginal contacts should be carefully adjusted. In the case of pronounced convex or large proximal surfaces where the ceramic is not supported by the shoulder, no marginal contacts should be adjusted to prevent fractures. Central occlusal contacts should not be positioned on the margins of restorations. If possible, occlusally exposed dentine should be integrated into the restoration.



The following procedure is recommended:

When fabricating delicate restorations (especially inlays and onlays with very thin ceramic layers), the occlusion should only be checked after final cementing to avoid fractures in the ceramic.



Use shimstock film for marking occlusal interferences in the static occlusion. Remove interference to the static occlusion caused by occlusal contacts and smooth the surface with a spindle-shaped diamond milling tool (40 µm, red color coding). Use a spindle-shaped diamond milling tool (40 µm) to mark and remove interference in the dynamic occlusion caused by occlusal contacts.

Sufficient cooling with water must be ensured!



The use of pointed diamond tools must be avoided since they penetrate too deeply into the fissures and may weaken the ceramic.



Prepolish with 8 µm diamond abrasives, while exerting slight pressure; adequate cooling with water must be ensured.



Note: Fine-grit diamond tools with round tip should be used for finishing ceramic restorations. Tools with a sharp tip will weaken the ceramic.



### Finishing and polishing

Careful polishing is important for the overall esthetic and functional appearance of the restoration. A carefully polished ceramic surface reduces plaque accumulation and protects the antagonist tooth against abrasion.

Pay attention to margins and contact points when polishing the restoration. The correct speed must be ensured and generation of heat must be avoided. Prior to cementation, proximal areas are polished outside the mouth, for example, with VITA KARAT diamond polishing paste. To achieve a natural surface shine, the following procedure is recommended:



Finishing/smoothing the outer and occlusal surface of the restoration using Al<sub>2</sub>O<sub>3</sub>-coated flexible discs (for example, Sof-Lex discs, 3M Espe) in descending order of grit size (black, dark blue, medium blue, light blue) and fine-grit finishing diamonds, while exerting little pressure and ensuring sufficient cooling with water (observe manufacturer's instructions).



High-gloss polishing of the surface with Occlubrush (Hawe Neos) and diamond polishing paste (for example, Ultra II ceramic polishing paste, Shofu). Polish in the lower speed range (max. 15,000 rpm) with intermittent pressure (without water cooling).

Finally, the polishing paste is removed with the Occlubrush brush and water spray.

Completely polished restoration



Fluoridation of the work space.

### Removal of adhesively bonded partial restorations

When fabricating restorations such as inlays, onlays, partial crowns, etc., the transitions between restoration, composite and tooth substance are difficult to differentiate during wet grinding. In order not to penetrate too deeply into the tooth substance, stopping the tool occasionally and drying the work area with air is recommended.

Recommended tool:

Cylindrical diamond tool (105 – 124 µm).

### Trepanation

Preferably, a cylindrical diamond tool is used to create a trepanation opening (transversal). Once the opening is created, continue using conventional procedures.

### **Dentist practice**

Contrast spray:	VITA Powder Scan Spray
Matrixes and wedges:	Hawe Dead Soft (KerrHawe)
Try-in paste/oxygen protection gel:	VITA ADIVA OXY-PREVENT
Phosphoric acid etching gel:	VITA ADIVA TOOTH-ETCH
Ceramic etching gel:	VITA ADIVA CERA-ETCH
Silane bonding agent:	VITA ADIVA C-PRIME
Luting composite:	VITA ADIVA F-CEM
Adhesive system:	VITA ADIVA T-BOND
Flexible polishing discs:	Sof-Lex (3MEspe)
Polishing brushes:	Occlubrush (KerrHawe)
Diamond polishing paste:	VITA Polish Cera, extraoral diamond polishing paste
Disposable applicators:	Microbrush

### **Dental laboratory**

Paste to check occlusion and contacts, Pasta rossa, 3 g (Anaxdent)  
Texture marker (Benzer Dental AG)  
Smart Clip holding forceps (Hammacher)  
Pick-up sticks (Hager & Werken)

Firing units: VITA SMART.FIRE, VITA VACUMAT 6000 M, VITA V60 i-Line (see page 18)

### **Materials for characterization / individualization of the shade**

VITA LUMEX® AC, CUT-BACK-KIT  
VITA AKZENT Plus SPRAY KIT  
VITA AKZENT Plus POWDER KIT  
VITA AKZENT Plus PASTE KIT





**Types of VITABLOCS®**

**VITABLOCS® Mark II**

Fine-structure, monochromatic feldspar ceramic blocks with the abrasion characteristics of natural tooth enamel.



**VITABLOCS® TriLux forte**

Fine-structure feldspar ceramic blocks in four different shade intensity levels with a finely nuanced shade transition from the enamel to the neck layer.



**VITABLOCS RealLife®**

Fine-structure feldspar ceramic blocks with a three-dimensional block structure that matches the structure of natural dentition, including an arched shade gradient from the dentine to the incisal edge, especially for highly esthetic anterior restorations.



**Materials for individualization of the shade**

**VITA LUMEX® AC, CUT-BACK-KIT**

Assortment containing a selection of VITA LUMEX AC materials, which are perfectly suitable for individualizing restorations made of VITABLOCS.



**VITA AKZENT® Plus PASTE KIT**

Assortment of 19 ready-to-use, fine-grained stain pastes for shade characterization of restorations made of VITABLOCS, particularly for use in dental practices.



**VITA AKZENT® Plus POWDER KIT**

Assortment of 19 ceramic stain powders for characterizing restorations made of VITABLOCS. The stains have good stability characteristics, as well as shade stability and can be mixed with one another.



**VITA AKZENT® Plus GLAZE SPRAY**

Easy to apply, spray-on ceramic powder for simple and time-saving glazing of ceramic restorations. Ideal for glazing monolithic restorations made of VITABLOCS in the dental practice.



#### Shade determination

##### **VITA Linearguide 3D-MASTER®/ VITA Toothguide 3D-MASTER®**

With the VITA Linearguide 3D-MASTER, you can determine the correct tooth shade quickly and precisely. The modern design and the linear arrangement enable quick determination of the suitable tooth shade. The VITA Linearguide 3D-MASTER is an alternative to the proven VITA Toothguide 3D-MASTER and features different (linear) arrangements of the shade sample teeth.



##### **VITA Easyshade® V**

The digital shade measurement device VITA Easyshade V, allows users 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 VITABLOCS shades. Seamless design, Bluetooth®, communication software for PC, smartphone and tablet, inductive charging and several new features guarantee maximum precision, quality and ease of use.



**Materials for the optical impression**

**VITA Powder Scan Spray**

Bottle containing 75 ml of blue, titanium dioxide-free spray-on pigment suspension with mint flavor for direct application (tooth surface) and for indirect use (plaster die/plaster model) for the opto-electronic impression of CAD/CAM restorations.



**Materials for the adhesive technique**

**VITA ADIVA FULL-ADHESIVE LUTING SET**

Assortment includes all materials for full-adhesive bonding of restorations fabricated using VITABLOCS.



**VITA ADIVA F-CEM**

Dual-curing, full-adhesive luting composite in four shades (A2 Universal, A3, White opaque and Translucent). Automix syringe cont. 5 ml, with material-saving T-mixers.



**VITA ADIVA IA-CEM**

Dual-curing full-adhesive, ultra-opaque bonding composite for severely discolored preparations, metal post and core structures, etc., in Automix syringe cont. 5 ml with material-saving T-mixers.



**VITA ADIVA T-BOND SET**

Dual-curing dentine/enamel bonding system.  
Content: one bottle cont. 5 ml of VITA ADIVA T-BOND I,  
one bottle cont. 5 ml of VITA ADIVA T-BOND II.



**VITA ADIVA TOOTH-ETCH**

35% orthophosphoric acid gel for etching tooth substance,  
blue colored, good stability characteristics  
Contents: Two syringes of 3 ml each, cannulas



**VITA CERAMICS ETCH** (for extraoral use only!)

Hydrofluoric acid gel, 5%, for etching silicate ceramics, red colored.  
Syringe containing 3 ml or bottle containing 6 ml.



**VITA ADIVA C-PRIME**

Single-component silane bonding agent, syringe of 5 ml.



**VITA ADIVA OXY-PREVENT**

Neutral-colored glycerine gel to prevent the formation of an oxygen inhibition layer.  
It is also suitable for use as a try-in paste.  
Syringe of 3 ml.



**Polishing**

**VITA Karat diamond polishing set\***







Assortment containing 5 g of diamond polishing paste, 20 diamond felt wheels (Ø 12 mm) and one nickel-plated mandrel.




\*For indirect use only




**Storage box**


Storage box made of high-quality acrylic for storing up to 36 VITABLOCS bars.

<p><b>VITA AKZENT Plus</b> <b>EFFECT STAINS</b> POWDER 3 g or PASTE 4g – masking stains that offer superior coverage – for natural surface effects</p>		<table border="1"> <tbody> <tr><td>ES01</td><td>white</td></tr> <tr><td>ES02</td><td>cream</td></tr> <tr><td>ES03</td><td>lemon-yellow</td></tr> <tr><td>ES04</td><td>sunshine yellow</td></tr> <tr><td>ES05</td><td>orange</td></tr> <tr><td>ES06</td><td>russet</td></tr> <tr><td>ES07</td><td>khaki</td></tr> <tr><td>ES08</td><td>pink</td></tr> <tr><td>ES09</td><td>dark red</td></tr> <tr><td>ES10</td><td>lilac</td></tr> <tr><td>ES11</td><td>blue</td></tr> <tr><td>ES12</td><td>grey-blue</td></tr> <tr><td>ES13</td><td>grey</td></tr> <tr><td>ES14</td><td>black</td></tr> </tbody> </table>	ES01	white	ES02	cream	ES03	lemon-yellow	ES04	sunshine yellow	ES05	orange	ES06	russet	ES07	khaki	ES08	pink	ES09	dark red	ES10	lilac	ES11	blue	ES12	grey-blue	ES13	grey	ES14	black	
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The following products require hazard identification:		
<p><b>VITA ADIVA® CERA-ETCH (hydrofluoric acid ceramic etching gel)</b></p>	<p><b>Caustic/Toxic</b></p> <p>For extraoral use only!            Contains hydrofluoric acid.            Toxic if swallowed. Fatal in contact with skin.            Causes severe skin burns and damage to eyes. Harmful by inhalation.            Wear protective gloves/protective clothing/safety goggles.            Keep locked up.            If swallowed, call the Toxicological Information Center immediately and provide safety data sheet. In case of contact with clothing/skin, remove contaminated clothing immediately and rinse with a copious amount of water. Specific measures, see safety data sheet.            In case of contact with eyes, rinse with water for a few minutes and consult a doctor/Toxicological Information Center.            This material and its container must be disposed of as hazardous waste.</p>	
<p><b>VITA ADIVA® TOOTH-ETCH (Phosphoric acid etching gel)</b></p>	<p><b>Caustic</b></p> <p>Causes severe skin burns and eye damage.            Contains phosphoric acid.            When working with the product, do not eat or drink. Do not inhale gas/fume/vapor/aerosol. In case of contact with eyes, rinse thoroughly with water and consult a doctor. When working with the product, wear suitable protective clothing, protective gloves and safety goggles/face protection.            In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).            This material and its container must be disposed of as hazardous waste.</p>	
<p><b>VITA ADIVA® C-PRIME (Silane bonding agent)</b></p>	<p>Highly flammable liquid and vapor.            Keep away from heat/sparks/open flame/hot surfaces.            No smoking.</p>	



<p><b>VITA AKZENT® Plus BODY SPRAY / GLAZE SPRAY</b></p>	<p><b>Extremely flammable aerosol</b></p> <p>Spray-on ceramic glaze material. For dental applications only. Not for direct use. Shake well before use. Pressurized container: do not puncture or burn. Protect from direct sunlight and temperatures above 50 C°. Do not pierce or burn even after use. Do not spray into flames or onto glowing objects. Keep away from ignition sources. No smoking. Keep away from heat, sparks, open flames and hot surfaces.</p>	
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<p><b>Protective clothing</b></p>	<p>While work is in progress, wear suitable safety goggles/ face protection, gloves and safety clothing. In case of formation of dust, use an extraction system or wear a face mask.</p>	
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The corresponding safety data sheets can be downloaded at [www.vita-zahnfabrik.com/sds](http://www.vita-zahnfabrik.com/sds).










- The products labelled with a pictogram for hazardous substances are to be disposed of as hazardous waste. Recyclable waste (such as attachments, paper and plastics) must be disposed of using appropriate recycling systems. If necessary, contaminated product residues should be pretreated in accordance with regional regulations and disposed of separately.

**Storage information**

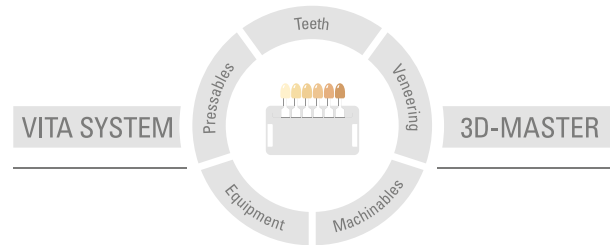
- The VITABLOCS must be stored in a dry place. They can be disposed of with household waste.

**Explanation of symbols**

Medical device		Manufacturer	
For dental users only	Rx only	Date of manufacture	
Observe instructions for use		Expiration date	
Product number		Lot number (batch)	



More information about VITABLOCS is available at:  
[www.vita-zahnfabrik.com/vitablocs](http://www.vita-zahnfabrik.com/vitablocs)



**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 applications. 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 and this results in damage. The VITA Modulbox is not necessarily a component of the product. Date of issue of this information for use: 2022-07

After the publication of this information for use, any previous versions become obsolete. The current version can be found under [www.vita-zahnfabrik.com](http://www.vita-zahnfabrik.com)

VITA Zahnfabrik is certified, and the following products bear the mark

**CE 0124**

**VITA LUMEX® AC · VITABLOCS® · VITA AKZENT® Plus**

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 **MD** Rx Only (for professional use only)

**CH REP** VITA Zahnfabrik H. Rauter GmbH & Co.KG, Bad Säckingen (Germany)  
Zweigniederlassung Basel c/o Perrig AG, Max Kämpf-Platz 1, 4058 Basel

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