

VITA LUMEX® AC

Instructions for use



VITA shade determination

VITA shade communication

VITA shade reproduction

VITA shade control

Date of issue: 02.21

VITA – perfect match.

VITA

VITA LUMEX®AC: Ideal shade fidelity. Excellent light dynamics. Precise processing.



Dear Customers,

Congratulations and thank you for choosing VITA LUMEX AC!

With VITA LUMEX AC, you get an all-ceramic veneering system for the veneering of all commonly available ceramic substructure materials and for the fabrication of restorations without a substructure, such as veneers.

To use VITA LUMEX AC safely and efficiently at all times, please read this information fully before first use.

We hope you enjoy VITA LUMEX AC and achieve great results!

Your VITA Product Management Team

Explanation of symbols:

 **System/technology info**

 **Note**

 **Firing**

 **Please note**

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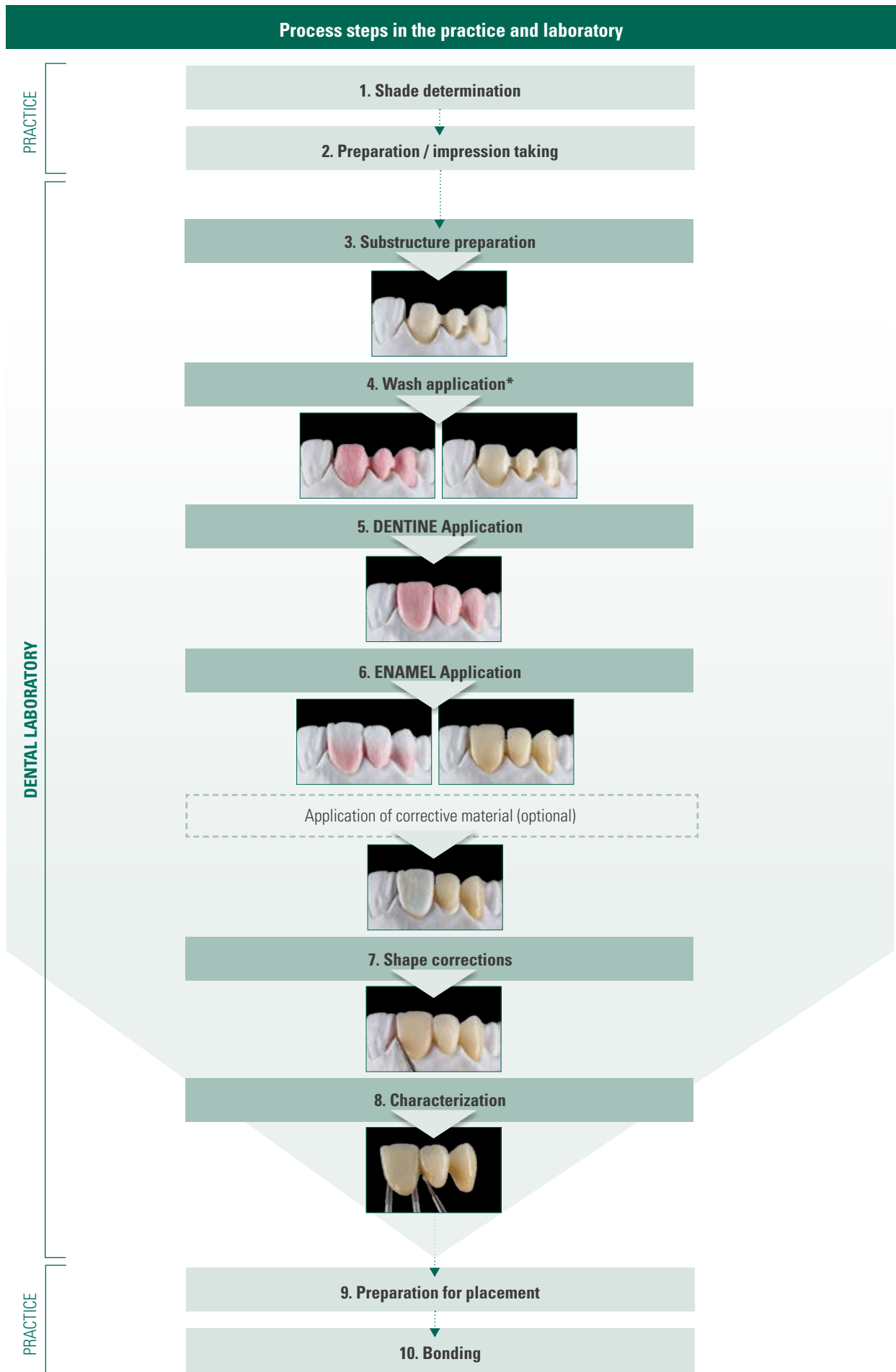
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1. Material system/processes
















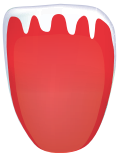




















Note:

- What? VITA LUMEX AC is a leucite-reinforced, glass-ceramic veneering system.
- What for? For veneering any common all-ceramic framework material (zirconia, lithium disilicate and feldspar ceramic) and titanium frameworks. For the production of reconstructions without a framework (e. g. veneers).
- With what? VITA LUMEX AC includes:
GINGIVA, OPAQUE, OPAQUE DENTINE, DENTINE and ENAMEL materials, as well as a multitude of effect materials (e. g., OPAL TRANSLUCENT, FLUO INTENSE and much more).


















*) This process is not necessary for lithium disilicate substructures, but can be performed optionally.

2. Indication range of the ceramic materials

VITA LUMEX® AC materials overview						
Basic materials						
 <p>OPAQUE</p>	<p>For the masking of substructures</p>					
<p>Shades ▶</p>	 opaque-0	 opaque-1	 opaque-2	 opaque-3	 opaque-4	 opaque-5
 <p>OPAQUE DENTINE</p>	<p>For the reproduction of the base shade in the case of minimum wall thicknesses</p>					
<p>Shades ▶</p>	<p>VITA classical A1–D4 and VITA SYSTEM 3D-MASTER*</p>					
 <p>DENTINE</p>	<p>For the reproduction of the base shade in the cervical / body area</p>					
<p>Shades ▶</p>	<p>VITA classical A1–D4 and VITA SYSTEM 3D-MASTER*</p>					
 <p>ENAMEL</p>	<p>For the reproduction of the play of shade and light in the tooth enamel</p>					
<p>Shades ▶</p>	 light	 medium	 intense	 clear	 fog	
 <p>GINGIVA</p>	<p>For the reconstruction of gingival areas</p>					
<p>Shades ▶</p>	 pale-papilla	 light-rose	 nectarine	 grapefruit	 rosewood	 purple
	 deep-red	 dark-red				



























VITA LUMEX® AC materials overview

Effect / addition materials DENTINE

 <p>DENTINE MODIFIER</p>	<p>For the reproduction of effects in the cervical / dentine area</p>		
<p>Shades ▶</p>	<p>cloudy-white caramel</p>	<p>honey copper</p>	<p>brown</p>
 <p>CHROMA INTENSE</p>	<p>For the enhancement of chromaticity in the cervical area, especially in cases of thin layers</p>		
<p>Shades ▶</p>	<p>ivory almond</p>	<p>hazelnut</p>	
 <p>FLUO INTENSE</p>	<p>For the control of fluorescence from the depths</p>		
<p>Shades ▶</p>	<p>arctic-white cream</p>	<p>cappuccino sand</p>	<p>sesame</p>
 <p>MARGIN</p>	<p>For ceramic shoulders and corrections in the margin area**</p>		
<p>Shades ▶</p>	<p>straw-yellow corn-yellow</p>		
 <p>MAMELON</p>	<p>For the imitation of mamelons in the incisal area</p>		
<p>Shades ▶</p>	<p>saffron honey-melon</p>		

VITA LUMEX® AC materials overview

Effect / addition materials ENAMEL

 <p>TRANS-LUCENT</p>	<p>Universally applicable translucent enamel effect materials for the reproduction of shade effects in the incisal area</p>		
<p>Shades ▶</p>	<p>  smoky-white  light-blonde  misty-rose  sunlight  sun-intense  waterdrop  deep-blue  foggy-grey </p>		
 <p>OPAL TRANS-LUCENT</p>	<p>For the reproduction of opal effects</p>		
<p>Shades ▶</p>	<p>  opal-neutral  opal-sky  opal-azure </p>		
 <p>PEARL</p>	<p>For the reproduction of mother-of-pearl effects</p>		
<p>Shades ▶</p>	<p>  shell </p>		
 <p>CORRECTIVE</p>	<p>For corrections after the glaze firing with a reduced firing temperature</p>		
<p>Shades ▶</p>	<p>  neutral  desert </p>		

3. Preparation of the substructure

3.1 Implementation of the wash application



1 Initial situation.



2 Applying wash material.



3 ... Step 2 ...



4 Substructure after washbake.

Note:

- A washbake is recommended for a good bond of VITA LUMEX AC to the ceramic substructure.
 - Mix DENTINE materials with VITA LUMEX AC MODELLING LIQUID to obtain a thin aqueous mixture.
 - Use a brush to apply thinly, evenly and uniformly to the clean, dry substructure.
 - For more fluorescence or opacity from the depths, other materials such as FLUO INTENSE or OPAQUE DENTINE can also be used as an alternative.
- Use VITA OPAQUE LIQUID for the OPAQUE materials and VITA LUMEX AC MODELLING LIQUID for the remaining ceramic materials.
- Mix the Margin powder with VITA LUMEX AC Modelling Liquid. The shoulder can be stabilized using a hair dryer or radiated heat from the opening of the furnace.

Please note:

- This process is not necessary for lithium disilicate substructures, but can be performed optionally.

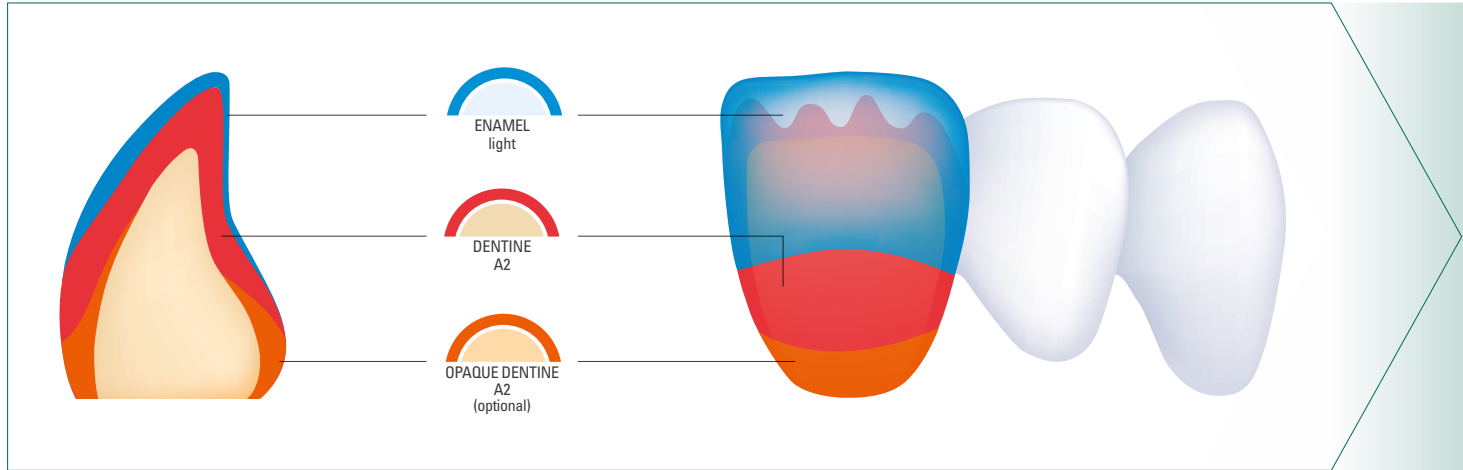
Firing:

Recommended firing for zirconia substructures					
Pre-dry °C	→ min.	↗ °C/min.	approx. temp. °C	→ min.	VAC
400	4.00	50	800	1.00	on

Recommended firing for glass ceramic					
Pre-dry °C	→ min.	↗ °C/min.	approx. temp. °C	→ min.	VAC
400	4.00	50	760	1.00	on

4. Standard full veneering

4.1 Example of layering pattern A2



Note:

- Generally, standard full veneering is done with DENTINE and ENAMEL materials. However, OPAQUE DENTINE materials can also be used as an option.
- In the following cases, the additional application of OPAQUE DENTINE materials is recommended:
 - to prevent the loss of shade on pontics, especially in the gingival area,
 - for the precise reproduction of shade-intensive spots, such as occlusal surfaces of molars,
 - to support the shade effect in cases of small space relations (< 0.8 mm).

Please note:

- The relationship of the layer thicknesses of DENTINE and ENAMEL can impact the shade intensity of the restoration. Shade intensive results are achieved with thicker layers of OPAQUE DENTINE and DENTINE materials – the thicker the layer of ENAMEL, the more pallid the end result.
- ENAMEL light was designed to create a translucent effect in the incisal area. If a higher opacity is required, e. g. TRANSLUCENT light-blonde can be used for lighter tooth shades and TRANSLUCENT smoky-white for bleach shades.



▶ 4.2 Application of DENTINE



1 Prepared substructure.



2 Insulate the model.



3 Application of OPAQUE DENTINE.



4 Application of DENTINE Step 1 ...



5 ... Step 2



6 ... Step 3.

💡 Note:

- For easier removal of the restoration, insulate the model beforehand with VITA Modisol.
- To avoid differences in the shade of abutment crowns and pontics, OPAQUE DENTINE materials are applied to the basal surface and the cervical area of the pontic.
- In cases of insufficient space relationships (just at the cuspids), apply a thin layer of OPAQUE DENTINE before applying the dentine and enamel. This guarantees a precise reproduction of shade, especially in cases of layer thicknesses of less than 0.8 mm.
- For a good orientation with regard to size, shape and position of the teeth, apply the dentine fully anatomically.

4.3 Application of ENAMEL, first dentine firing



1 Reduce dentine using cut-back.



2 Apply ENAMEL ...



3 ... Step 2 ...



4 ... Step 3.



5 Perform interdental separation ...



6 ... Result after separation.



7 Mark the contact points.

Note:

- For an optimal enamel application, reduce the DENTINE in the upper third.
- For a uniform level of moisture, the material should be carefully wetted with a brush in the interproximal areas from the palatal side before the enamel material is applied.
- To complete the crown shape, ENAMEL is applied in several small quantities.
- To compensate for firing shrinkage, the size of the mould should be prepared somewhat larger.
- Before the first dentine firing, using a slightly moist separating knife, separate each of the individual bridge units interdentially up to the substructure.
- After removing the bridge from the model, complete the contact points with DENTINE and ENAMEL.
- Finally, the bridge is placed on a firing tray for the subsequent firing process.
- ENAMEL light was designed to create a translucent effect in the incisal area. If a higher opacity is required, e. g. TRANSLUCENT light-blonde can be used for lighter tooth shades and TRANSLUCENT smoky-white for bleach shades.

Firing:

Recommended firing, first dentine firing*					
Pre-dry °C	→ min.	↗ °C/min.	approx. temp. °C	→ min.	VAC
400	6.00	50	760	1.00	on

*) Applies for both zirconia and glass-ceramic substructures.

▶ 4.4 Shape correction, second dentine firing



1 Result after the first dentine firing.



2 Isolate model.



3 Apply OPAQUE DENTINE / DENTINE.



4 Apply ENAMEL ...



5 ... Step 2.



Note:

- Insulate with VITA Modisol again before placing on the model. This way, any material applied in the basal area will not stick to the model.
- Make corrections of the shape starting from the cervical area with OPAQUE DENTINE / DENTINE and ENAMEL.



Firing:

Recommended firing second dentine firing*					
Pre-dry °C	→ min.	↗ °C/min.	approx. temp. °C	→ min.	VAC
400	6.00	50	755	1.00	on

*) Applies for both zirconia and glass ceramic substructures.

▶ 4.5 Finishing of the restoration



1 Grind contact point.



2 Correct shape ...



3 ... Step 2.



4 ... Step 3.



5 Final finished restoration.

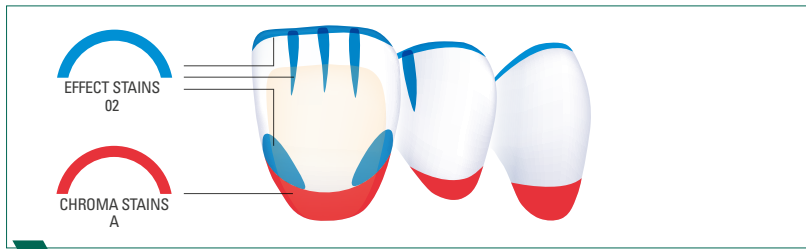
💡 Note:

- After firing, place on the model and grind the contact points.
- Make smaller shape corrections with a diamond tool; separate the interdental spaces using a diamond disk.
- Then incorporate natural surface structures (e. g., growth grooves or convex / concave surfaces).

⚠ Please note:

- Before the glaze / stain firing, clean the restoration thoroughly of grinding dust with a toothbrush under running water or with a steam jet.

4.6 Characterization / glazing of the restoration



➤ Example of pattern for characterization.



➤ 1 Application of glaze.



➤ 2 Apply stains.

Note:

- Glaze the entire restoration with VITA AKZENT PLUS GLAZE LT as needed.
- To intensify the shade in the cervical area, for example, apply VITA AKZENT PLUS CHROMA STAINS.
- For the reproduction of individual shade characteristics, for example, apply VITA AKZENT PLUS EFFECT STAINS.

Firing:

Recommended firing - glaze firing with VITA AKZENT® Plus Glaze LT Powder*					
Pre-dry °C	→ min.	↗ °C/min.	approx. temp. °C	→ min.	VAC
400	4.00	80	750	1.00	–

*) Applies for both zirconia and glass ceramic substructures.



MATERIAL SYSTEM/
PROCESSES

INDICATION RANGE OF THE
CERAMIC MATERIALS

PREPARATION
OF THE SUBSTRUCTURE

**STANDARD
FULL VENEERING**

PARTIAL VENEERING
AFTER CUT-BACK

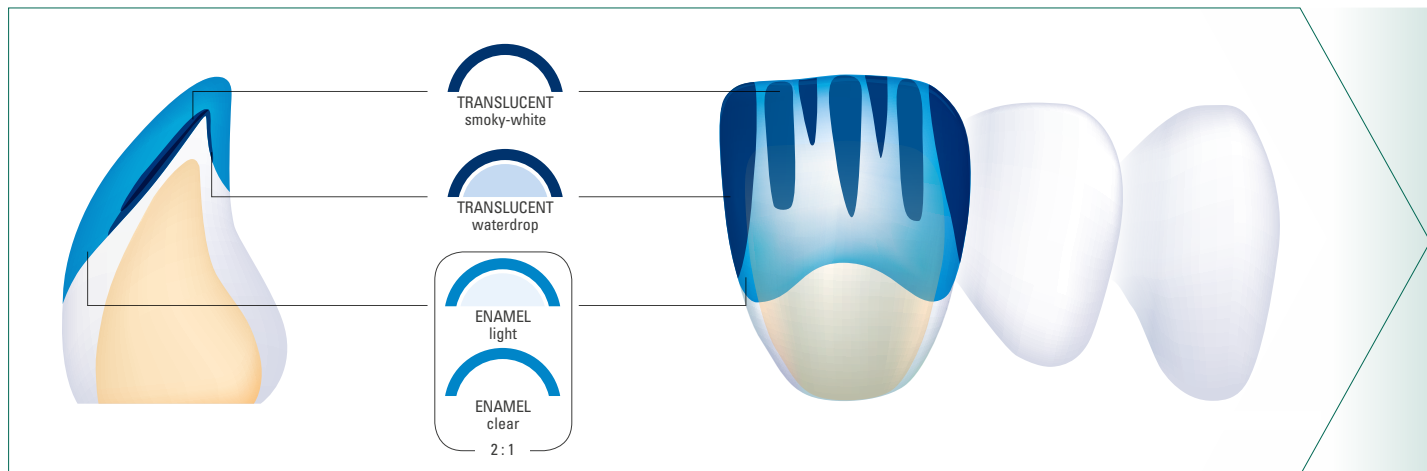
INDIVIDUAL FULL
VENEERING

SHADE REPRODUCTION /
FIRING

TECHNICAL DATA /
INFORMATION

5. Partial veneering after cut-back

5.1 Example of layering pattern



Note:

- The dentine shade is formed by the cut-back substructure; the individual incisal characterization is done with ENAMEL and TRANSLUCENT ceramic materials.

Please note:

- When reducing the substructure in the incisal area, the manufacturer's specifications on minimum wall thickness must be observed!



5.2 Washbake plus characterization



1 Anatomically reduced restoration.



2 Application of wash material ...



3 ... Step 2.



4 Then glaze / characterize the restoration.



5 Result after the firing.

Note:

- Use ENAMEL for the washbake; in cases of thin layers, VITA AKZENT PLUS GLAZE LT is also possible as an alternative for the washbake.
- Use VITA AKZENT PLUS CHROMA STAINS for intensifying the shade in the cervical area, for example.
- Use VITA AKZENT PLUS EFFECT STAINS for the reproduction of individual shade characteristics, for example.

Please note:

- This process is not necessary for lithium disilicate substructures, but can be performed optionally.

Firing:

Recommended firing for zirconia substructures

Pre-dry °C	→ min.	↗ °C/min.	approx. temp. °C	→ min.	VAC
400	4.00	50	800	1.00	on

Recommended firing for glass ceramic

Pre-dry °C	→ min.	↗ °C/min.	approx. temp. °C	→ min.	VAC
400	4.00	50	760	1.00	on

Links/Tutorials:

- Learn more in tutorial videos: vita-zahnfabrik.com/tutorial/lumexac/all/cutback

▶ 5.3 Application of ENAMEL



1 Result after layering with enamel.



2 Restoration after finishing.

! Note:

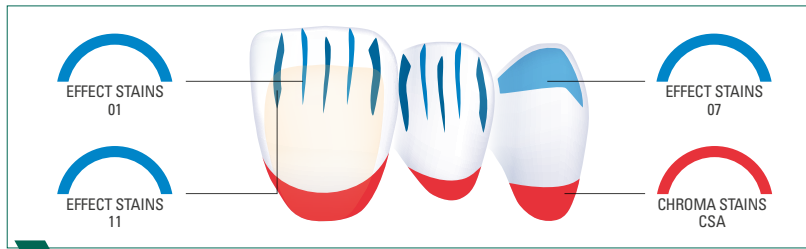
- Apply several small portions of ENAMEL to complete the crown mould, beginning from the middle third of the crown. To compensate for firing shrinkage, the size of the mould should be prepared somewhat larger.

🔥 Firing

Recommended firing first dentine firing*					
Pre-dry °C	→ min.	↗ °C/min.	approx. temp. °C	→ min.	VAC
400	6.00	50	760	1.00	on

*) Applies for both zirconia and glass ceramic substructures.

5.4 Characterization / glazing of the restoration



➤ Example of pattern for characterization.



➤ 1 Result after glaze application.



➤ 2 Result after stain application.

! Note:

- Glaze the entire restoration with VITA AKZENT PLUS GLAZE LT as needed.
- To intensify the shade in the cervical area, for example, apply VITA AKZENT PLUS CHROMA STAINS.
- For the reproduction of individual shade characteristics, for example, apply VITA AKZENT PLUS EFFECT STAINS.

! Please note:

- The use of glazing materials is optional; see Firing, Glaze Firing, chapter entitled "Shade reproduction / firing."

🔥 Firing:

Recommended firing - glaze firing with VITA AKZENT® PLUS GLAZE LT Powder*					
Pre-dry °C	→ min.	↗ °C/min.	approx. temp. °C	→ min.	VAC
400	4.00	80	750	1.00	–

*) Applies for both zirconia and glass ceramic substructures.



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INFORMATION

SHADE REPRODUCTION /
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INDIVIDUAL FULL
VENEERING

PARTIAL VENEERING
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STANDARD
FULL VENEERING

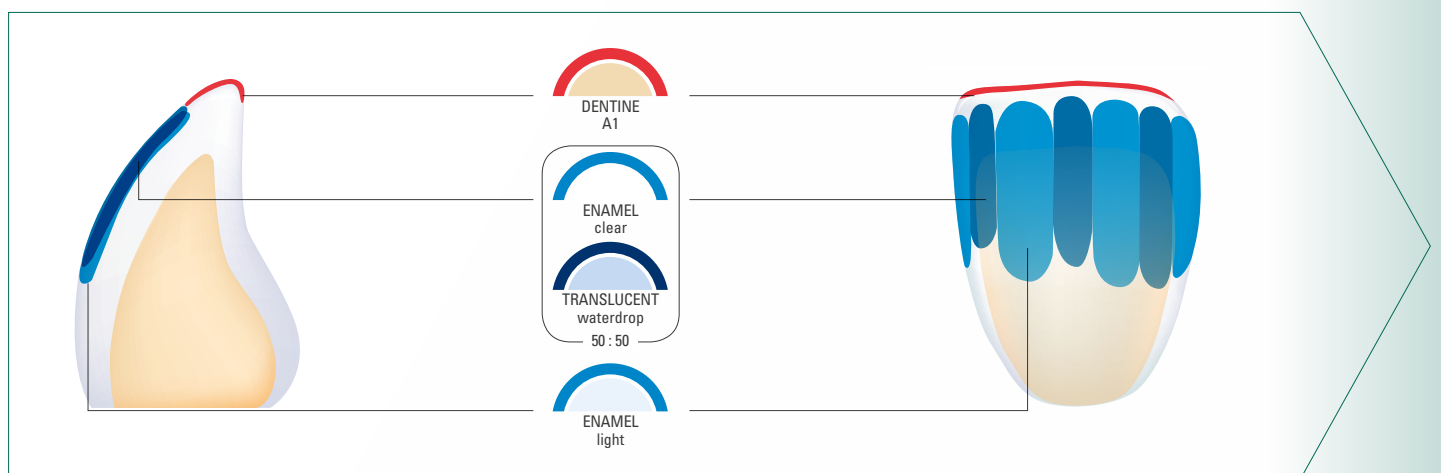
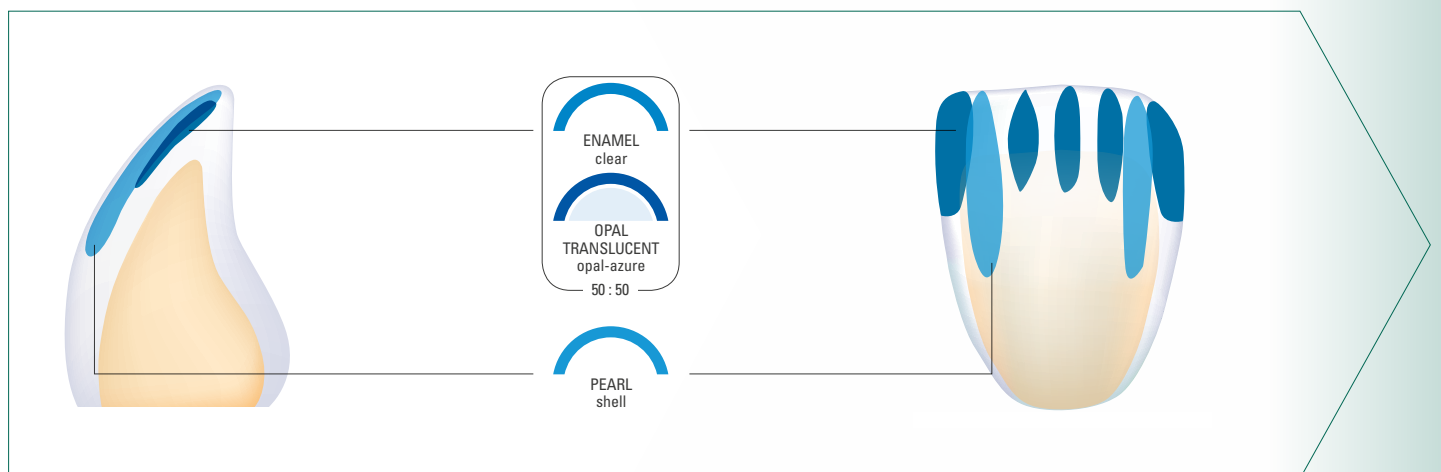
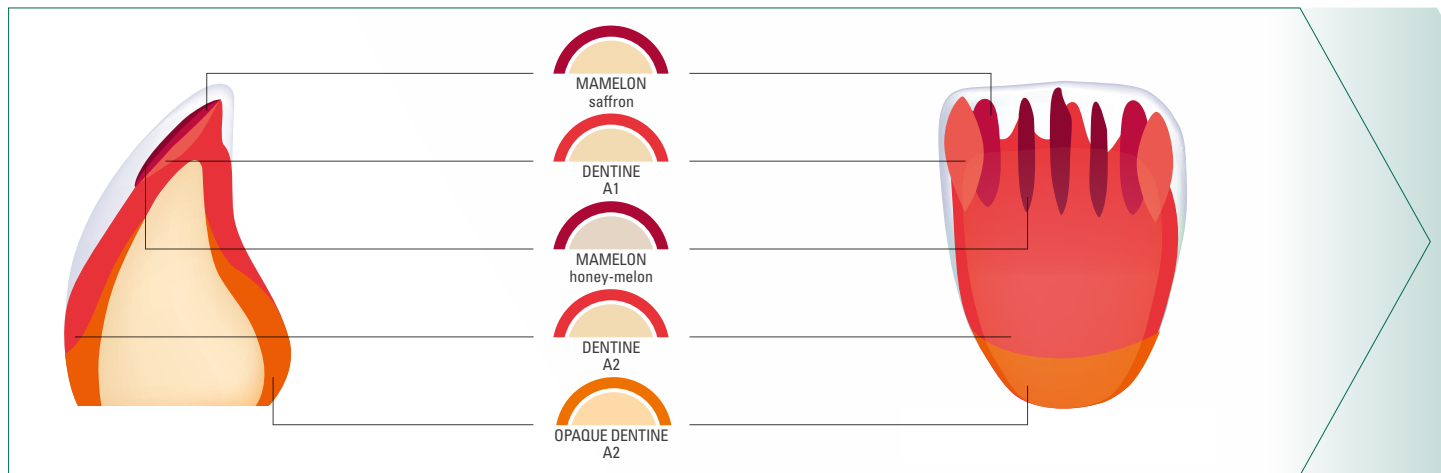
PREPARATION
OF THE SUBSTRUCTURE

INDICATION RANGE OF THE
CERAMIC MATERIALS

MATERIAL SYSTEM/
PROCESSES

6. Individual full veneering

6.1 Layering patterns: example of young anterior tooth in A2





▶ 6.2 Individual veneering of young anterior tooth



1 Prepared substructure on model.



2 Result after the washbake with DENTINE A1.



3 Result after OPAQUE DENTINE application.



4 Apply DENTINE.



5 Perform cut-back.



6 Result after cut-back.



7 Apply MAMELON materials.



8 Apply EFFECT materials.



9 Apply ENAMEL.



10 Restoration after completion of layering.



11 Restoration after firing.



12 Restoration after finishing.



13 Restoration characterized with VITA AKZENT PLUS



Tip

- In the present example, the cervical area was intensified with CHROMA STAINS and also dusted with FLUO INTENSE materials.
- The advantage of dusting the surfaces with FLUO INTENSE is that it provides a porous surface, where the light penetrating the restoration breaks down naturally.



Firing:

Recommended firing first dentine firing*					
Pre-dry °C	→ min.	↗ °C/min.	approx. temp. °C	→ min.	VAC
400	6.00	50	760	1.00	on

*) Applies for both zirconia and glass ceramic substructures.

Recommended firing - glaze firing with VITA AKZENT® PLUS GLAZE LT Powder*					
Pre-dry °C	→ min.	↗ °C/min.	approx. temp. °C	→ min.	VAC
400	4.00	80	750	1.00	–

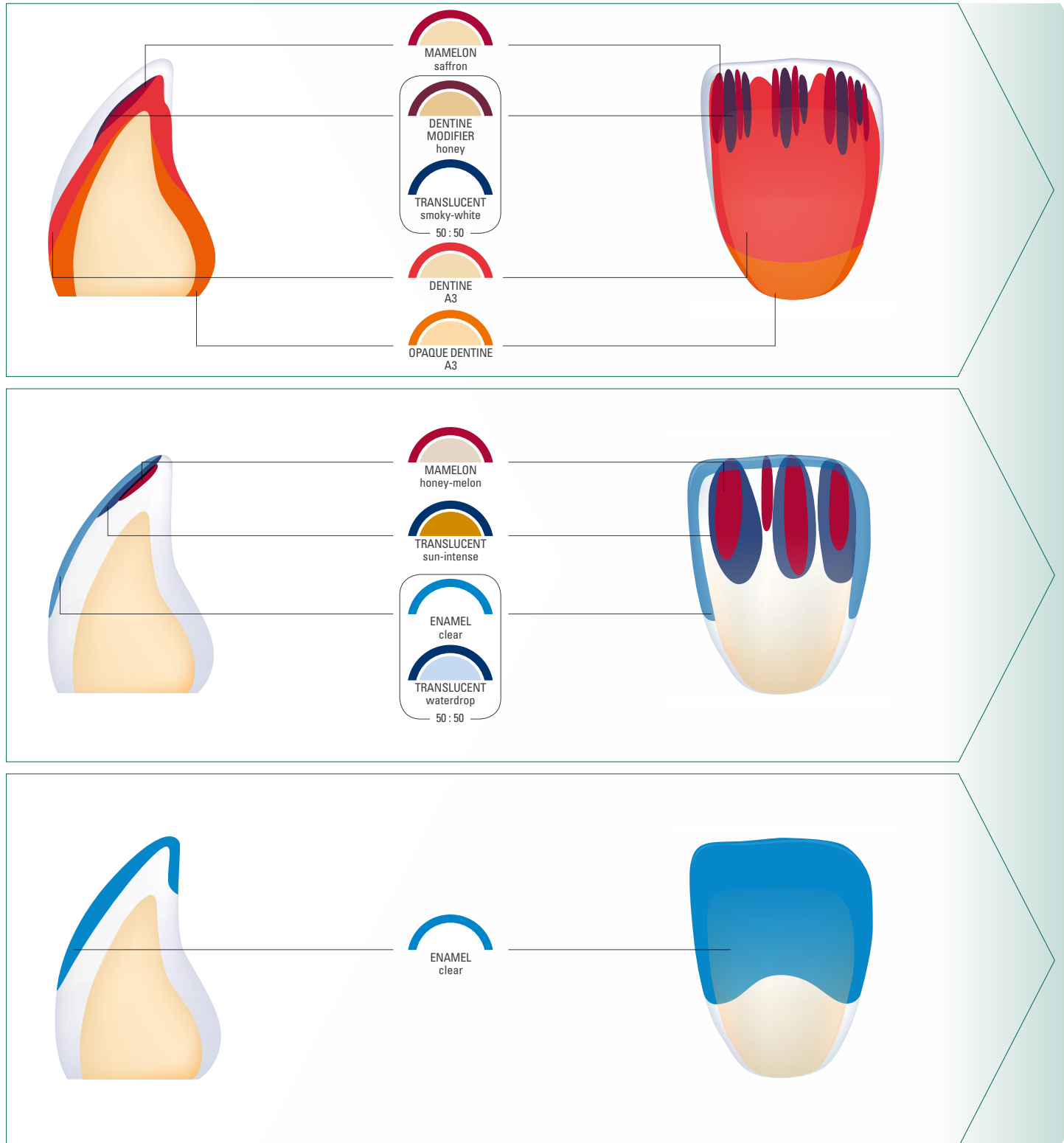
*) Applies for both zirconia and glass ceramic substructures.



Links/Tutorials:

- Learn more in tutorial videos: vita-zahnfabrik.com/tutorial/lumexac/all/young

6.3 Layering patterns: example of older anterior tooth in A3





▶ 6.4 Individual veneering of older anterior tooth



1 Applying wash material.



2 Result after washbake.



3 Apply OPAQUE DENTINE.



4 Build up the tooth shape using DENTINE.



5 Perform cut-back.



6 Apply effect materials ...



7 ... Second step.



8 Apply ENAMEL.



9 Result after the firing.



10 Result after glaze application.



11 Result after characterization.

🔥 Firing:

- For information on the dentine and glaze firings, see 6.2.

📖 Links/Tutorials:

- Learn more in tutorial videos: vita-zahnfabrik.com/tutorial/lumexac/all/middle



MATERIAL SYSTEM/
PROCESSES

INDICATION RANGE OF THE
CERAMIC MATERIALS

PREPARATION
OF THE SUBSTRUCTURE

STANDARD
FULL VENEERING

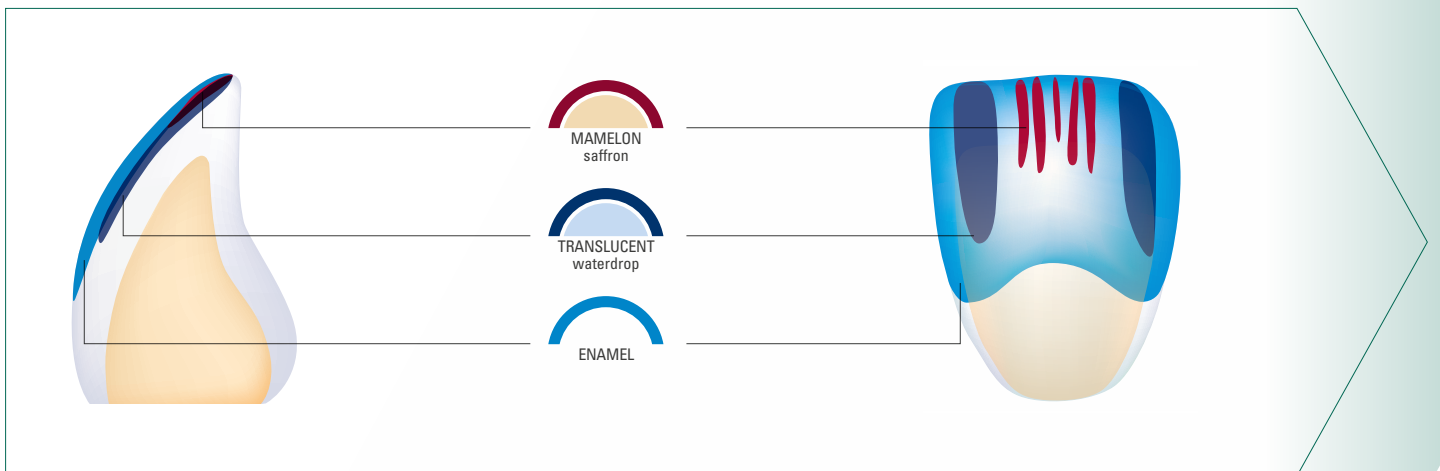
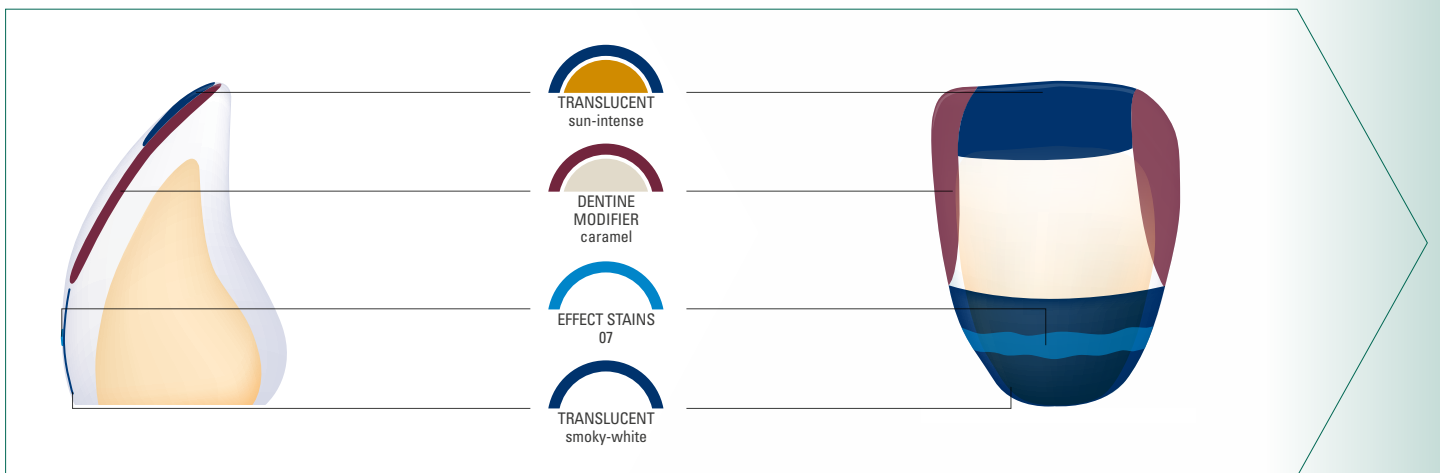
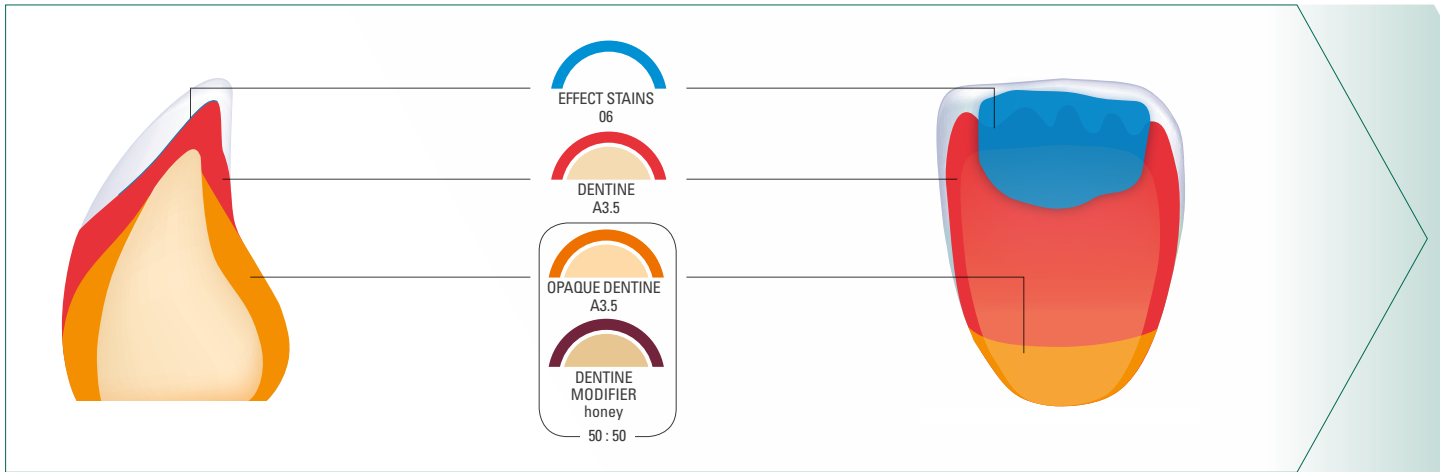
PARTIAL VENEERING
AFTER CUT-BACK

INDIVIDUAL FULL
VENEERING

SHADE REPRODUCTION /
FIRING

TECHNICAL DATA /
INFORMATION

6.5 Layering patterns: example of old anterior tooth in A3.5





▶ 6.6 Individual veneering of old anterior tooth



1 Applying wash material.



2 Result after washbake.



3 Apply OPAQUE DENTINE.



4 Application of DENTINE after cut-back.



5 Insert VITA AKZENT PLUS stains.



6 Apply effect materials.



7 Apply effect materials.



8 Apply ENAMEL.



9 Result after the firing.



10 Result after the finishing.



11 Result after glaze application.



12 Result after characterization.



Tip:

- VITA AKZENT PLUS stains are ideal for insertion during layering in order to achieve natural effects from the depths.



Firing:

- For information on dentine and glaze firings, see 6.2.



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7. Shade reproduction/firing

7.1 Overview of ceramic / stain firings

Firing parameters								
Programs	Predry. °C	→ min.	↗ °C/min.	approx. temp °C	→ min.	↘ °C	→ min.	Vac.
Cleaning firing YZ-T	500	03:00	33	700	05:00	–	–	–
Cleaning firing YZ-HT	290	10:00	10	600	05:00	–	–	–
Zirconia washbake	400	04:00	50	800	01:00	–	–	on
Glass-ceramic washbake	400	04:00	50	760	01:00	–	–	on
Opaque firing with OPAQUE (on ZrO ₂ and titanium)	400	04:00	50	800	01:00	–	–	on
Shoulder firing with MARGIN	400	06:00	50	770	01:00	–	–	on
First dentine firing	400	06:00	50	760	01:00	500*	–	on
Second dentine firing	400	06:00	50	755	01:00	500*	–	on
Glaze firing	400	00:00	80	750	01:00	500*	–	–
Stains fixation firing with VITA AKZENT PLUS	400	04:00	80	700	01:00	500*	–	–
Glaze firing with VITA AKZENT PLUS GLAZE LT Powder	400	04:00	50	750	01:00	500*	–	–
Glaze firing with VITA AKZENT PLUS GLAZE LT Paste	400	08:00	50	750	01:00	500*	–	–
Glaze firing with VITA AKZENT PLUS FLUOGLAZE LT Spray	400	06:00	50	750	01:00	500*	–	–
Corrective firing with CORRECTIVE	400	04:00	50	725	01:00	500*	–	on

*) Long-term cooling down to the appropriate temperature is recommended for the last planned veneering ceramic firing.
The lift position for VITA VACUMAT furnaces should be > 75%. Firing object must be protected against direct supply of air.

Note:













- Based on the poor thermal conductivity of both materials (Y-TZP and veneering ceramic), higher residual stress can occur in this compound system than is known to typically occur in metal ceramics. This residual thermal stress in the veneering ceramic can be counteracted by means of slow cooling during the last firing cycle to below the transformation temperature of the veneering ceramic (for VITA LUMEX AC, approx. 550 °C).

! Please note:

- The user 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 rather the appearance and the surface quality of the firing object after firing.
- Low-melting ceramics are generally more susceptible to residual moisture during the firing process. Too much residual moisture after pre-drying may, for example, affect the shade effects of the subsequent restoration. Depending on the size of the restoration and the individual work habits, extending the preheating time may lead to an improvement in the firing results.
- To achieve ideal firing results on multi-unit bridge frameworks (especially with voluminous bridge units), it is recommended to extend the heating time.

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

7.2 Shade reproduction according to VITA classical A1–D4















































	 OPAQUE	 OPAQUE DENTINE	 DENTINE	 ENAMEL**	 FLUO INTENSE	 DENTINE MODIFIER	 CHROMA INTENSE
A1	 opaque-1	A1	A1	 light	 cream		
A2	 opaque-2	A2	A2	 light	 arctic-white  cappuccino*		
A3	 opaque-2	A3	A3	 light	 sand  sesame*		
A3.5	 opaque-3	A3.5	A3.5	 medium	 sesame		
A4	 opaque-3	A4	A4	 medium	 arctic-white  sand*		
B1	 opaque-1	B1	B1	 medium	 arctic-white  cream*		
B2	 opaque-1	B2	B2	 medium	 arctic-white  cappuccino*	 cloudy-white	
B3	 opaque-3	B3	B3	 medium	 cream  sand*	 caramel	 ivory
B4	 opaque-3	B4	B4	 medium	 sand  sesame*	 honey	 almond
C1	 opaque-3	C1	C1	 medium	 arctic-white  sesame*	 copper	 hazelnut
C2	 opaque-2	C2	C2	 medium	 cream  sesame*		
C3	 opaque-3	C3	C3	 light	 sesame		
C4	 opaque-4	C4	C4	 light	 cappuccino  sesame		
D2	 opaque-2	D2	D2	 medium	 cream  sesame*		
D3	 opaque-3	D3	D3	 medium	 cream  cappuccino*		
D4	 opaque-3	D4	D4	 medium	 cream  sesame*		

MARGIN	MAMELON	TRANSLUCENT	OPAL TRANSLUCENT	PEARL	GINGIVA	CORRECTIVE
<p>↑</p> <p>↓</p> <p>straw-yellow</p> <p>corn-yellow</p>	<p>↑</p> <p>↓</p> <p>saffron</p> <p>honey-melon</p>	<p>↑</p> <p>↓</p> <p>smoky-white</p> <p>light-blonde</p> <p>misty-rose</p> <p>sunlight</p> <p>sun-intense</p> <p>deep-blue</p> <p>waterdrop</p> <p>foggy-grey</p>	<p>↑</p> <p>↓</p> <p>opal-neutral</p> <p>opal-sky</p> <p>opal-azure</p>	<p>↑</p> <p>↓</p> <p>shell</p>	<p>↑</p> <p>↓</p> <p>pale-papilla</p> <p>light-rose</p> <p>nectarine</p> <p>grapefruit</p> <p>rosewood</p> <p>purple</p> <p>deep-red</p> <p>dark-red</p>	<p>↑</p> <p>↓</p> <p>neutral</p> <p>desert</p>

*) Mixing ratio 1:1

**) ENAMEL light was designed to create a translucent effect in the incisal area. If a higher opacity is required, e.g. TRANSLUCENT light-blonde can be used for lighter tooth shades and TRANSLUCENT smoky-white for bleach shades.

7.3 Shade reproduction according to VITA SYSTEM 3D-MASTER

































































	 OPAQUE	 OPAQUE DENTINE	 DENTINE	 ENAMEL**		 FLUO INTENSE	 DENTINE MODIFIER	 CHROMA INTENSE		
0M1	 opaque-0	0M1	0M1	 light	 clear  fog	 arctic-white				
0M2	 opaque-0	0M2	0M2	 light		 arctic-white				
0M3	 opaque-0	0M3	0M3	 light		 arctic-white				
1M1	 opaque-1	1M1	1M1	 light		 arctic-white  cream*				
1M2	 opaque-1	1M2	1M2	 light		 cream				
2L1.5	 opaque-2	2L1.5	2L1.5	 light		 arctic-white  cream*				
2L2.5	 opaque-2	2L2.5	2L2.5	 light		 arctic-white  cappuccino*			 cloudy-white	
2M1	 opaque-2	2M1	2M1	 light		 sand  sesame*			 caramel	 ivory
2M2	 opaque-2	2M2	2M2	 light		 arctic-white  cappuccino*			 honey	 almond
2M3	 opaque-2	2M3	2M3	 light		 cream  sand*			 brown	 hazelnut
2R1.5	 opaque-2	2R1.5	2R1.5	 light		 arctic-white  sesame*				
2R2.5	 opaque-2	2R2.5	2R2.5	 light		 cream  sand*				
3L1.5	 opaque-3	3L1.5	3L1.5	 medium		 cream  sesame*				
3L2.5	 opaque-3	3L2.5	3L2.5	 medium		 sand  sesame*				
3M1	 opaque-3	3M1	3M1	 light		 arctic-white  sesame*				
3M2	 opaque-3	3M2	3M2	 light		 cream  sesame*				

MARGIN	MAMELON	TRANSLUCENT	OPAL TRANSLUCENT	PEARL	GINGIVA	CORRECTIVE
<p>↑</p> <p>↓</p> <p>straw-yellow</p> <p>corn-yellow</p>	<p>↑</p> <p>↓</p> <p>saffron</p> <p>honey-melon</p>	<p>↑</p> <p>↓</p> <p>smoky-white</p> <p>light-blonde</p> <p>misty-rose</p> <p>sunlight</p> <p>sun-intense</p> <p>deep-blue</p> <p>waterdrop</p> <p>foggy-grey</p>	<p>↑</p> <p>↓</p> <p>opal-neutral</p> <p>opal-sky</p> <p>opal-azure</p>	<p>↑</p> <p>↓</p> <p>shell</p>	<p>↑</p> <p>↓</p> <p>pale-papilla</p> <p>light-rose</p> <p>nectarine</p> <p>grapefruit</p> <p>rosewood</p> <p>purple</p> <p>deep-red</p> <p>dark-red</p>	<p>↑</p> <p>↓</p> <p>neutral</p> <p>desert</p>

*) Mixing ratio 1:1

**) ENAMEL light was designed to create a translucent effect in the incisal area. If a higher opacity is required, e.g. TRANSLUCENT light-blonde can be used for lighter tooth shades and TRANSLUCENT smoky-white for bleach shades.

7.3 Shade reproduction according to VITA SYSTEM 3D-MASTER

	 OPAQUE	 OPAQUE DENTINE	 DENTINE	 ENAMEL**		 FLUO INTENSE	 DENTINE MODIFIER	 CHROMA INTENSE
3M3	 opaque-3	3M3	3M3	 light	 clear  fog	 sand  sesame*	 cloudy-white  caramel  honey  copper  brown	 ivory  almond  hazelnut
3R1.5	 opaque-3	3R1.5	3R1.5	 light		 cream  cappuccino*		
3R2.5	 opaque-3	3R2.5	3R2.5	 medium		 sesame		
4L1.5	 opaque-4	4L1.5	4L1.5	 light		 sesame		
4L2.5	 opaque-4	4L2.5	4L2.5	 light		 cappuccino  sand*		
4M1	 opaque-4	4M1	4M1	 light		 sesame		
4M2	 opaque-4	4M2	4M2	 intense		 cream  cappuccino*		
4M3	 opaque-4	4M3	4M3	 intense		 sesame		
4R1.5	 opaque-4	4R1.5	4R1.5	 light		 cream  cappuccino*		
4R2.5	 opaque-4	4R2.5	4R2.5	 intense		 cappuccino  sand*		
5M1	 opaque-5	5M1	5M1	 light		 cappuccino  sesame*		
5M2	 opaque-5	5M2	5M2	 intense		 sesame		
5M3	 opaque-5	5M3	5M3	 intense		 cappuccino  sand*		

Note: The material classifications are only intended to provide reference values!

MARGIN	MAMELON	TRANSLUCENT	OPAL TRANSLUCENT	PEARL	GINGIVA	CORRECTIVE
<p>↑</p> <p>↓</p> <p>straw-yellow</p> <p>corn-yellow</p>	<p>↑</p> <p>↓</p> <p>saffron</p> <p>honey-melon</p>	<p>↑</p> <p>↓</p> <p>smoky-white</p> <p>light-blonde</p> <p>misty-rose</p> <p>sunlight</p> <p>sun-intense</p> <p>deep-blue</p> <p>waterdrop</p> <p>foggy-grey</p>	<p>↑</p> <p>↓</p> <p>opal-neutral</p> <p>opal-sky</p> <p>opal-azure</p>	<p>↑</p> <p>↓</p> <p>shell</p>	<p>↑</p> <p>↓</p> <p>pale-papilla</p> <p>light-rose</p> <p>nectarine</p> <p>grapefruit</p> <p>rosewood</p> <p>purple</p> <p>deep-red</p> <p>dark-red</p>	<p>↑</p> <p>↓</p> <p>neutral</p> <p>desert</p>

*) Mixing ratio 1:1

**) ENAMEL light was designed to create a translucent effect in the incisal area. If a higher opacity is required, e.g. TRANSLUCENT light-blonde can be used for lighter tooth shades and TRANSLUCENT smoky-white for bleach shades.

 **8. Technical data/information** **8.1 Technical / physical data**

VITA LUMEX AC		
Physical properties	Unit of measure	Value
CTE (25– 400 °C)	10^{-6} K^{-1}	approx. 8.8
Solubility in acids	$\mu\text{g}/\text{cm}^2$	approx. 10
3-point flexural strength	MPa	approx. 110

 **8.2 Chemical composition**

VITA LUMEX AC	Wt%
SiO ₂	60–75
Al ₂ O ₃	3–10
K ₂ O	5–12
Na ₂ O	4–11
B ₂ O ₃	5–12
CaO	< 3
Li ₂ O	< 3
pigments	< 10

 **Note:**

- The technical/physical values given are typical measurement results and refer to in-house manufactured samples and measuring instruments in the company.
- If samples are prepared using different methods and measurement equipment, other measuring results may be obtained.

8.3 Indications

Note:

Indication range:

- Full and partial veneering of zirconia
- Full and partial veneering of lithium disilicate
- Partial veneering of feldspar ceramic
- Reconstruction without a substructure
- Full and partial veneering of titanium grade 4 and 5

Materials:

- Zirconia substructures (CTE approx. 10.0 to $10.5 \times 10^{-6} \text{ K}^{-1}$)
- Glass-ceramic substructures (CTE approx. 9.0 to $10.5 \times 10^{-6} \text{ K}^{-1}$)
- Titanium framework constructions (CTE approx. 9.0 to $10.5 \times 10^{-6} \text{ K}^{-1}$)

8.4 Contraindications

Note:

- Substructures with unsuitable CTE values and material properties
- In patients with allergies or sensitivities to the ingredients
- In cases of insufficient space available

Please note:

- The veneering ceramic VITA VM 11 must be used for the product VITA SUPRINITY PC (zirconia reinforced lithium silicate ceramic).

8.5 Notes on layer thicknesses

Note:

- When preparing a ceramic veneer, a uniform layer thickness across the entire surface to be veneered must be ensured.
- The entire thickness of the ceramic layer, however, should not exceed 2 mm (the optimal layer thickness ranges from 0.7 to 1.2 mm).








8.6 General notes on handling

Note:


Information regarding general risks of dental treatments

- These risks are not specifically related to VITA products and their handling and are well known to all dental practitioners.
- Dental treatment and the integration of dental restorations entail the general risk of iatrogenic damage to hard tooth substance, pulp and/or oral soft tissue. The use of bonding systems and the integration of dental restorations involve the general risk of postoperative hypersensitivity.
- Product characteristics cannot be guaranteed if the instructions for use for the products are not followed.
A product defect and an irreversible injury to the natural hard substance of the tooth, the dental pulp and/or the oral soft tissue may result.
- The success of a tooth restoration always depends on its fit onto the underlying tooth structure.
- The ability to produce a routinely smooth, sound and well-fitting restoration requires strict adherence to certain fundamentals.
- A deficient margin leads to plaque formation, resulting in gingival inflammation and marginal cracks, which can lead to secondary caries, sensitivity, gingival recession, cement dissolution and debonding or discoloration of the restoration.
- Our products must be used in accordance with the actual version of the instructions for use.
- Any misuse may cause 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.
- If serious incidents have occurred in connection with the product, they must be reported to VITA Zahnfabrik H. Rauter GmbH & Co. KG, and the competent authority of the Member State in which the user and/or patient is established.

8.7 Symbol explanations

Manufacturer VITA Zahnfabrik		Manufacturing date	
Medical device		Shelf life	
For professionals only	Rx only	Product number	
See Instructions for Use		Lot number (batch)	

8.8 Safety at work / health protection

<p>Safety at work and health protection</p>	<ul style="list-style-type: none"> When working with the product, wear suitable safety goggles/ face protection, gloves and safety clothing. 	
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INDICATION RANGE OF THE
CERAMIC MATERIALS

PREPARATION
OF THE SUBSTRUCTURE

STANDARD
FULL VENEERING

PARTIAL VENEERING
AFTER CUT-BACK

INDIVIDUAL FULL
VENEERING

SHADE REPRODUCTION /
FIRING

8.9 VITA System Solutions



- For digital shade determination, use **VITA Easyshade V**, and for traditional shade determination, use a **VITA shade guide**.



- Manufacture substructures using CAD/CAM from **VITA YZ SOLUTIONS** zirconia and **VITABLOCS** feldspar ceramic or by the pressing technique from **VITA AMBRIA** lithium disilicate ceramic.



- Veneer all common substructure ceramics with the highly esthetic veneering ceramic **VITA LUMEX AC**.



- Characterize and glaze restorations with the **VITA AKZENT PLUS** stains/glazing materials.



- For veneer and stain firings, use the **VITA VACUMAT 6000 M** firing unit.



- Polish restorations with the recommended **VITA Karat Diamond Polishing Set**.



- **VITA LUMEX AC**-veneered restorations are bonded with full or self-adhesive bonding protocol with **VITA ADIVA LUTING SOLUTIONS**.

WE ARE HAPPY TO HELP

More information about the products and processing is also available at www.vita-zahnfabrik.com



Hotline Sales Support

Mrs. Carmen Holsten and her team (Internal Sales Department) will be glad to assist you with orders or questions about delivery, product data and marketing materials.

► Phone +49 (0) 7761 / 56 28 84
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Email info@vita-zahnfabrik.com



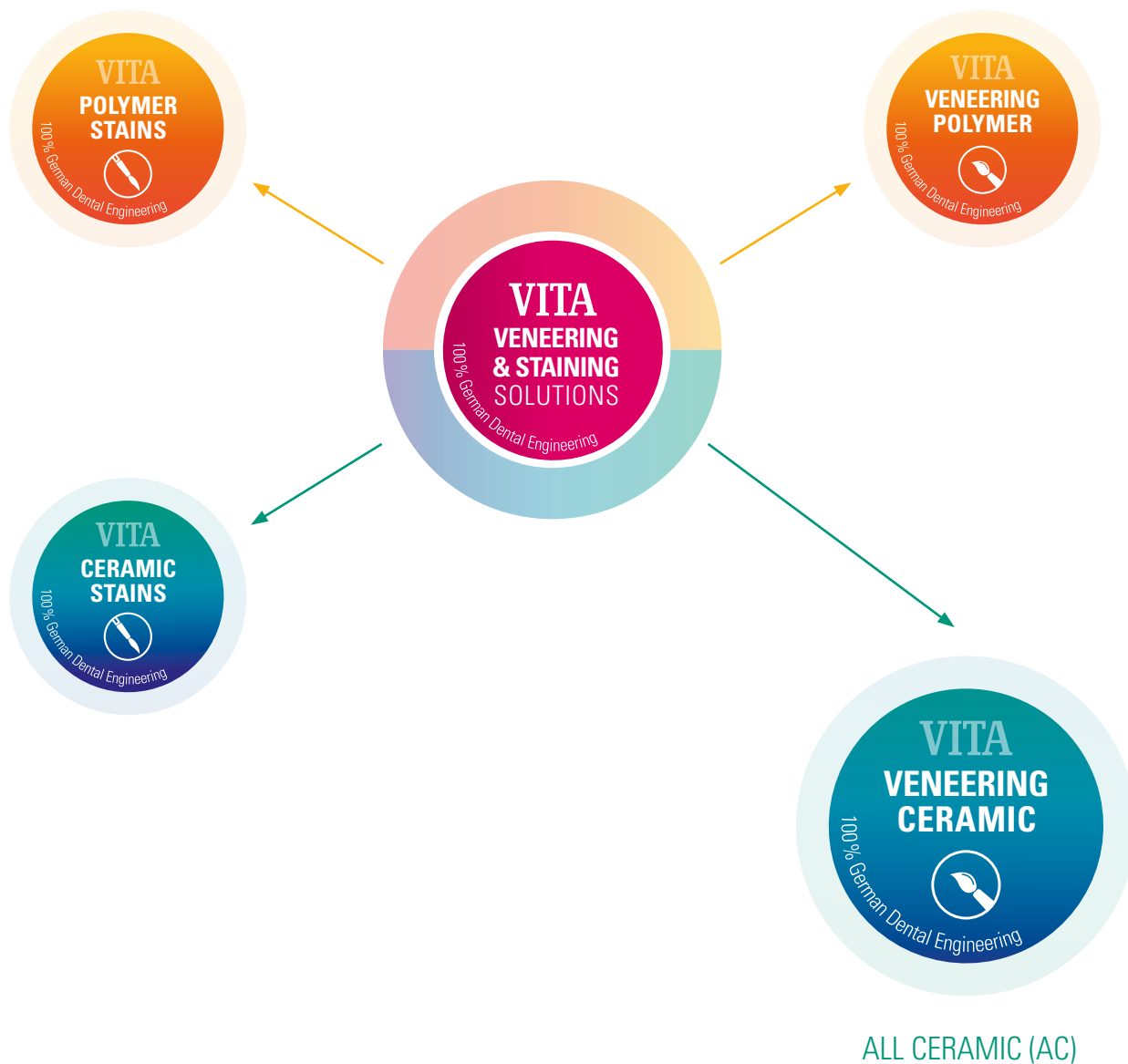
Technical hotline

If you have technical questions concerning the VITA product solutions, you can contact our technical specialist Mr. Ralf Mehlin

► Phone +49 (0) 7761 / 56 22 22
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8:00 a.m. to 5:00 p.m. CET
E-mail: info@vita-zahnfabrik.com



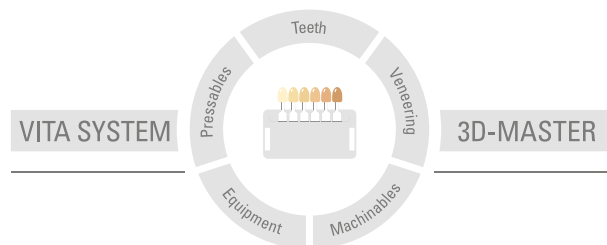
VITA VENEERING & STAINING SOLUTIONS – For a lifelike play of shade and light in all facets of nature.



> VITA LUMEX® AC: Ideal shade fidelity. Excellent light dynamics. Precise processing

The leucite-reinforced, glass-ceramic veneering system for the veneering of common all-ceramic framework materials.

You can find more information on VITA LUMEX AC at:
www.vita-zahnfabrik.com/lumex



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: 02.21

After the publication of this information for use any previous versions become obsolete. The current version can be found at www.vita-zahnfabrik.com

VITA Zahnfabrik has been certified and the following products bear the CE mark

CE 0124:

VITA LUMEX®AC, VITA AKZENT®Plus

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Rx Only

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VITA

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