VITA AKZENT® LC

Instructions for use I Full version



Date of issue: 2022-01

VITA — perfect match.



The composite stain system: versatile, multifaceted, precise detailing.



Dear Customers,

Congratulations and thank you for choosing the VITA AKZENT LC stain system!

VITA AKZENT LC is a highly esthetic composite stain/glaze system used for characterizing all indirect restorations made of composite, polymer and hybrid ceramic. It enables detailed effect reproduction, as well as reliable shade corrections.

To process VITA AKZENT LC safely and simply, read these instructions carefully before the first use.

We hope you enjoy VITA AKZENT LC and achieve esthetic results!

Your VITA Product Management Team



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> 4. Polymerization

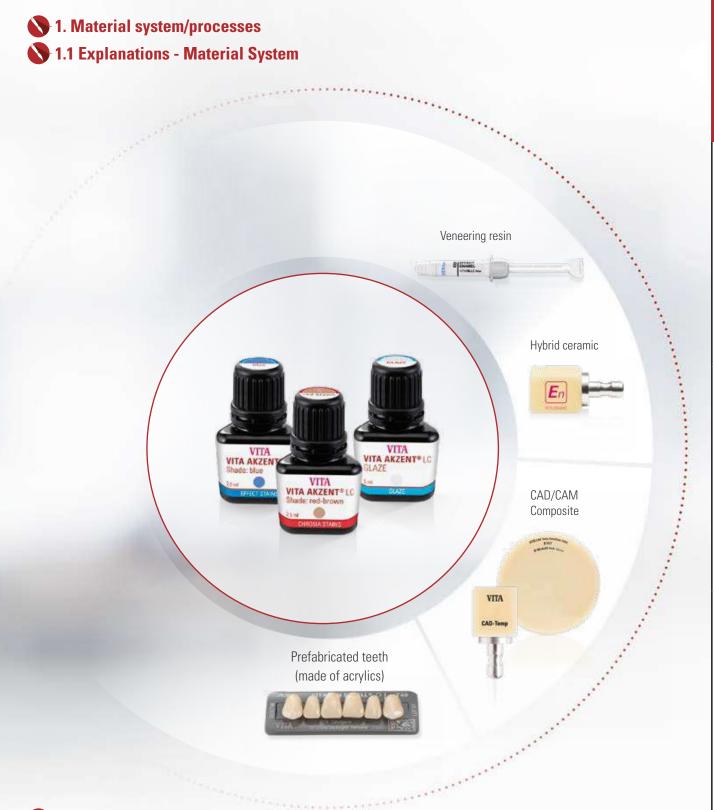
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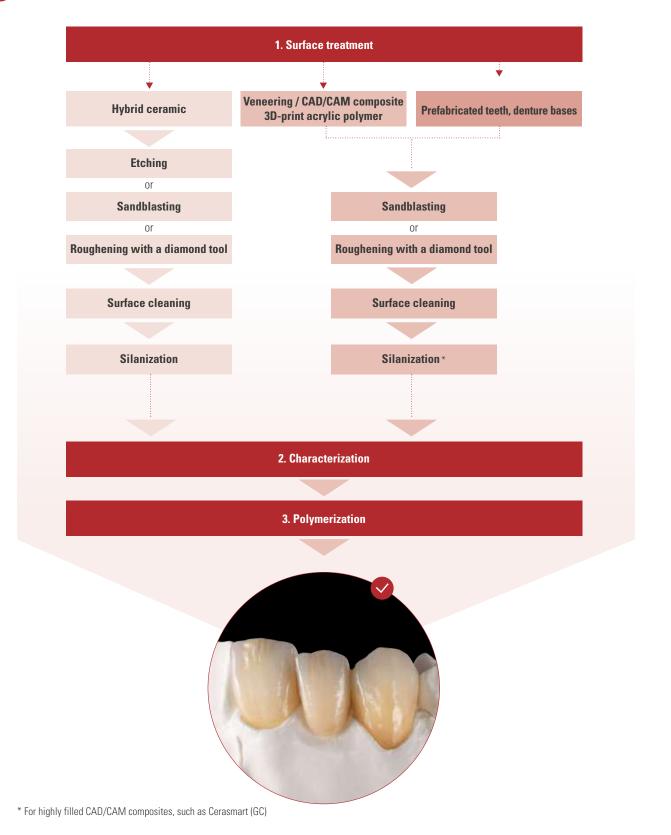




Note:

- What? VITA AKZENT LC are light-curing composite stains for reproducing individual shade effects and applying shade corrections.
- What for? The stains are universally suitable for extraoral characterization of dentures made of hybrid ceramic, CAD/CAM and veneering composites, denture bases, 3D-print acrylic polymers and prefabricated teeth, and can be used for internal characterization with the veneering technique.
- With what? The stain/glaze system includes 14 multifaceted effect stains, four glazing chroma stains (for each shade system) and a glaze paste for surface sealing.

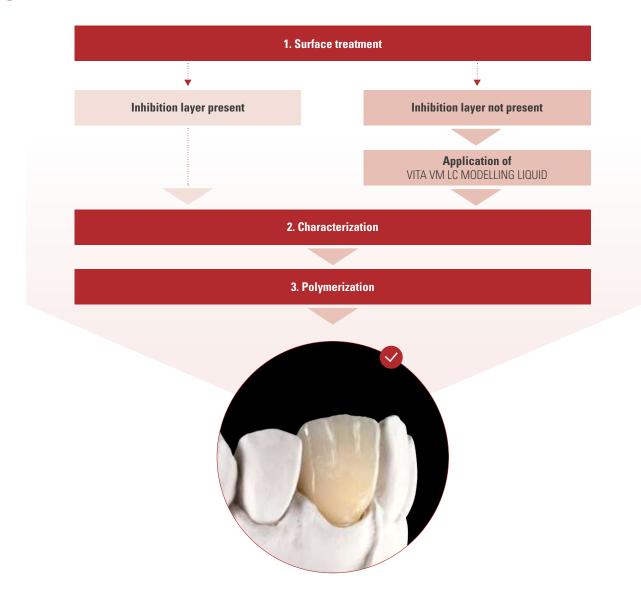
1.2 Process steps for external characterization



Note:

- VITA ADIVA CERA ETCH is recommended for etching with 5% hydrofluoric acid gel.
- VITA ADIVA C-PRIME is recommended for silanizing.
- Sandblasting with Al₂O₃

No. 1.3 Process steps for internal characterization with the veneering technique



2. Pretreatment 2.1 Overview - Pretreatment steps, according to material

	Hybrid ceramic (VITA ENAMIC)	Veneering composite (e.g., VITA VM LC) 3D-print acrylic polymer	CAD/CAM composite (e.g., VITA CAD-Temp, CERASMART)	Prefabricated teeth (made of acrylics)	Denture base resins
1.	Etch with 5% hydrofluoric acid (VITA ADIVA CERA- ETCH) for 60 seconds.	Roughen with a diamond tool.	Roughen with a diamond tool.	Roughen with a diamond tool.	Roughen with a diamond tool.
	or	or	or	or	or
	sandblast with Al₂O₃, 50 μm, 1 bar.*	sandblast with Al₂O₃, 50 μm, 1 bar.*	sandblast with Al₂O₃, 50 µm, 2 bar.*	sandblast with Al₂O₃, 50 μm, 2 bar.*	sandblast with Al₂O₃, 50 μm, 2 bar.*
	or roughen with a diamond tool.				
2.	After etching: Carefully remove any remaining acid by spray- ing with water or clean in the ultrasonic bath. Dry with oil-free air for 20 seconds.	Clean the surface care- fully with oil-free air.	Clean the surface care- fully with oil-free air.	Clean the surface care- fully with oil-free air.	Clean the surface care- fully with oil-free air.
	After sandblasting/ roughening: Clean the surface with water/steam jet and dry with oil-free air.				
3.	Silanize the surface with VITA ADIVA C-PRIME and blow gently.		Apply CERAMIC PRIMER II to CERASMART.		
1.		Apply stains directly to the inhibition layer.**			

For internal characterization

For external characterization*

^{*}

These are only general recommendations for pretreatment. Depending on the type of material, the specific manufacturer's instructions must be observed. If no inhibition layer is present during internal characterization, apply VITA VM LC MODELLING LIQUID, allow to act for 30 to max. 60 seconds and blow thinly ** with air. Characterize subsequently.

2.2 Pretreatment of hybrid ceramic





2 Etch restoration for 60 seconds.





 Dry surface with oil-free air for 20 seconds.



5 Silanize the etched surface (e.g., with VITA ADIVA C-PRIME).

Note:

- The surface of the VITA ENAMIC hybrid ceramic restoration to be characterized needs to be rough, free from grease and dry to ensure wetting and the retentive bond of the stain.
- For etching, apply 5% hydrofluoric acid gel (e.g., VITA ADIVA CERA-ETCH) to the surfaces to be etched using a brush applicator or a disposable brush.
- Once the application time is complete, remove any residual acid by spraying with copious amounts of water, by cleaning thoroughly using a steam jet device or by cleaning in an oil-free ultrasonic bath using distilled water.

Please note:

- · Always wear gloves and safety glasses when etching.
- Observe precautionary measures/safety data sheets (item 5.7)!
- Do not brush off hydrofluoric acid, since this will contaminate the surface.
- Do not touch the etched surface, since this will contaminate the etching pattern.

Links/Tutorials:

• Learn more in tutorial videos: www.vita-zahnfabrik.com/tutorial/akzentlc/all/ifu/etch

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3. Characterization 3.1 Overview - EFFECT STAINS

		Shades	Area of application
	EFFECT STAINS	white	For the imitation of enamel stains, enamel cracks, lime stains caused by dental fluorosis
		cream	For the imitation of enamel stains, lime stains caused by dental fluorosis and for accentuating cusps and bulges
		lemon	For the imitation of dentine core, mamelon structures, abrasion areas, cervical discoloration
		sun	For the imitation of dentine core, abrasion areas, fissures
SN		orange	For increasing cervical chromaticity and for the imitation of mamelon structures, discoloration in the neck area, abrasion areas
ECT STAI		russet	For the imitation of enamel cracks, discoloration at the incisal edge, fissures, darkening of proximal areas
VITA AKZENT® LC EFFECT STAINS		khaki	For the imitation of enamel cracks, fissures, nicotine stains, discoloration in the neck area, incisal edges and for darkening proximal areas
A AKZEN		pink	For the imitation of gingival areas
VITA		dark-red	For the imitation of gingival areas
		purple	For the imitation of incisal and occlusal translucency
		blue	For the imitation of incisal and occlusal translucency
		grey-blue	For the imitation of incisal and occlusal translucency
		grey	For reducing the intensity of other stains, incisal translucency
		black	For darkening other stains Incisal edge of anterior tooth - labial: For imitating translucency and for increasing the chromaticity of blue

Note:

- EFFECT STAINS are suitable for reproducing individual and specific shade accents and any natural shade characteristics.
- The stains can be mixed with GLAZE to reduce the chroma level.
- Subsequent coating with GLAZE is not absolutely necessary.

S 3.2 Overview - CHROMA STAINS

		Stains	Area of application
	CHROMA	VITA classical A1–I	04
		A red-brown	For shade corrections in the " ${f A}$ " shade group
AINS		B red-sun	For shade corrections in the " B " shade group
OMA ST∕		C grey-brown	For shade corrections in the " ${f C}$ " shade group
VITA AKZENT® LC CHROMA STAINS		D grey-red	For shade corrections in the " D " shade group
KZENT		VITA SYSTEM 3D-M	ASTER
VITA A		L corn-yellow	For shade corrections in the " ${f L}$ " shade group
		M2 red-yellow	For shade corrections in the " M2 " shade group
		M3 dark-yellow	For shade corrections in the " M3 " shade group
		R light-red	For shade corrections in the " ${f R}$ " shade group

Note:

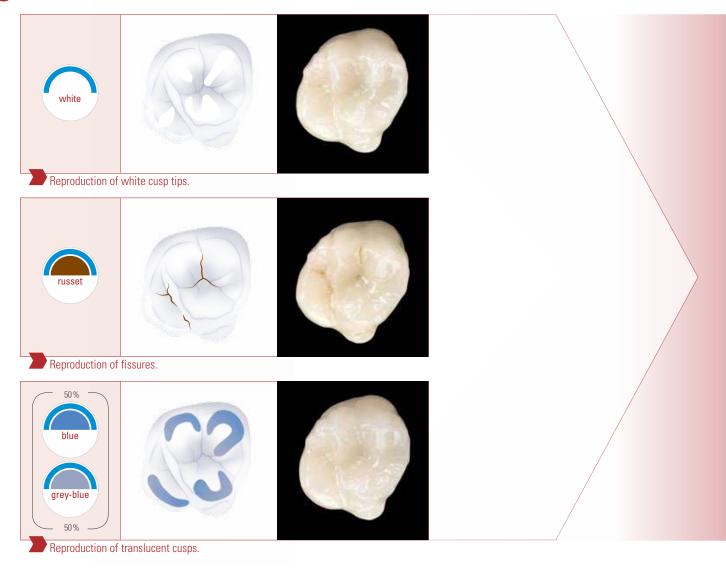
- CHROMA STAINS are glazing stains for specific control of the chromaticity (shade intensity) of the base material used to increase the chroma within a shade group. As a result, they are typically used over a large area.
- Like the EFFECT STAINS, CHROMA STAINS can also be used for individual and selective characterizations.
- Subsequent coating with GLAZE is not absolutely necessary.

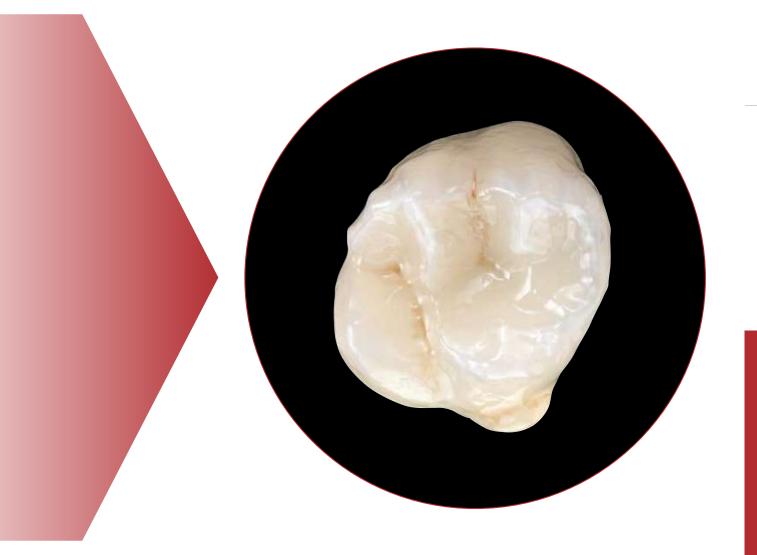


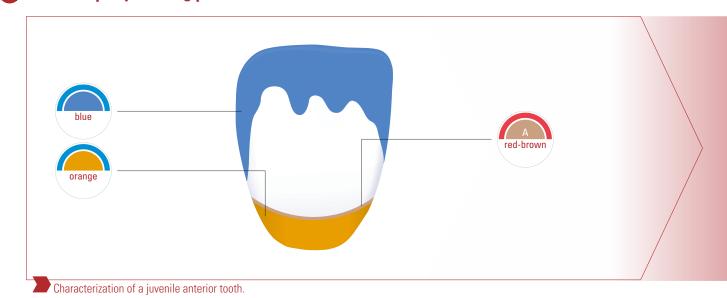




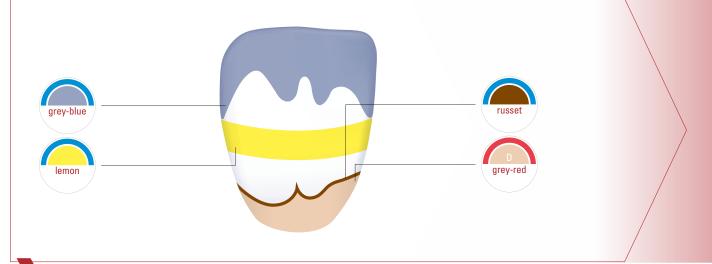
3.3 Application examples - Effect Stains: Posterior teeth



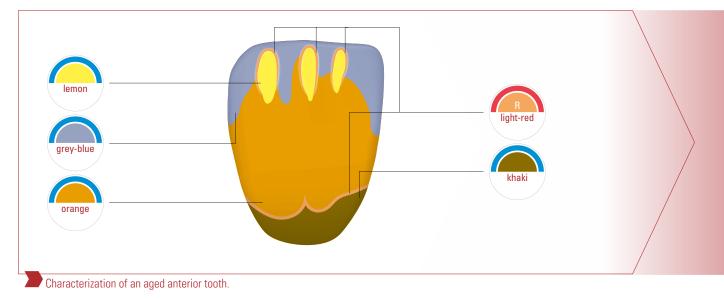




3.5 Exemplary staining patterns - EFFECT STAINS: Anterior teeth



Characterization of an older anterior tooth.



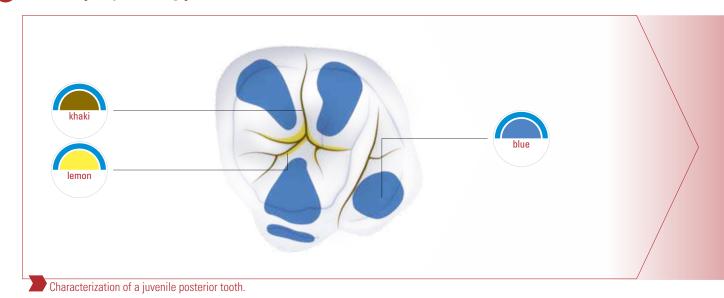
Juvenile anterior tooth



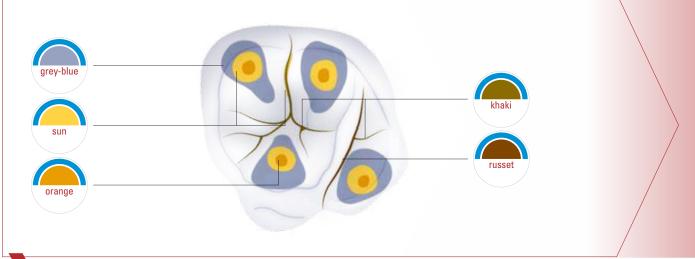
Aged anterior tooth

older anterior tooth

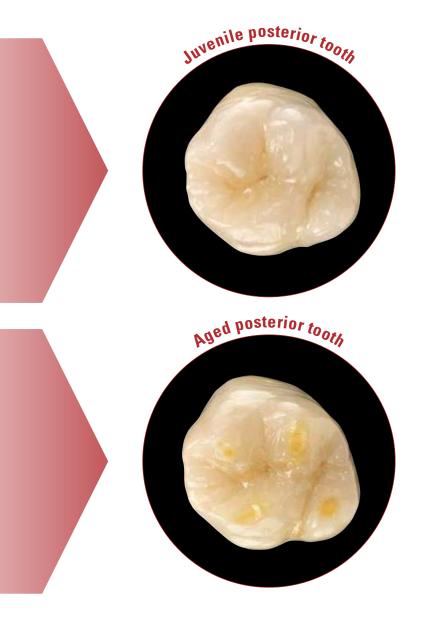




3.6 Exemplary staining patterns - EFFECT STAINS: Posterior teeth



Characterization of an aged posterior tooth.



3.7 External characterization with EFFECT STAINS





D Final characterized molar crown.



8 Clean brush with CLEANER and dry.

Note:

- Shake bottle well before use (for 10 seconds). The mixing ball must be clearly heard!
- Close bottles immediately after use.
- The brushes included in the assortment are recommended for applying the stains.
- Apply the stains in a thin layer.
- Subsequent coating with GLAZE is not absolutely necessary.

- Tip:

- Before characterization with the EFFECT STAINS, the rough surfaces of the restoration to be characterized can first be wetted with a thin layer of GLAZE to identify the base shade. Then polymerize GLAZE together with the EFFECT STAINS.
- The chroma of the stains can be reduced by adding GLAZE.
- Polymerize individual stain layers in steps.

Please note:

- The processing time of the stains depends on the room temperature and exposure to light.
- Cover the mixing tray with the lightproof lid in order to avoid premature polymerization of the stains.
- Dispose of any unused polymerized stain.
- Close the bottles immediately after use.
- Dry the brush thoroughly after cleaning with CLEANER.
- CLEANER adhering to the brush prevents proper polymerization of the stain.

Links/Tutorials:

• Learn more in tutorial videos: www.vita-zahnfabrik.com/tutorial/akzentlc/all/ifu/external

3.8 Internal characterization with EFFECT STAINS







- After final polymerization and finishing, polish the characterized surface with a suitable polishing paste (such as Renfert Polish hybrid materials, for example) and a soft goat hair brush. Then use a dry cotton buff to achieve the final gloss.
- The VITA AKZENT LC EFFECT STAINS can be mixed with the VITA VM LC flow materials in a max. ratio of 1:10.

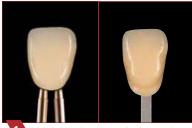
Links/Tutorials:

• Learn more in tutorial videos now: www.vita-zahnfabrik.com/tutorial/akzentlc/all/ifu/internal

* Necessary if no inhibition layer is present.

CHARACTERIZATION

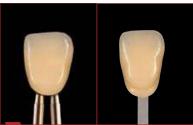
3.9 Shade corrections with CHROMA STAINS



Initial situation: poor shade match (A3 instead of A3.5).

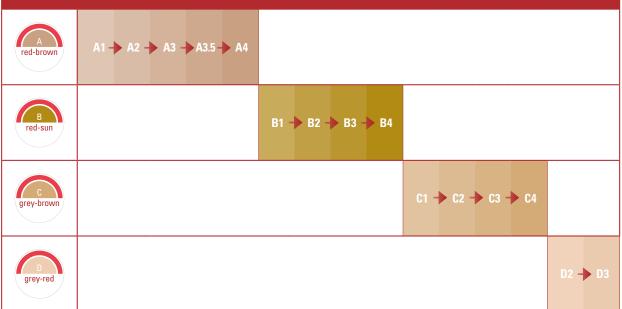


2 Apply CHROMA STAIN A (red brown) for the A shade group.



3 Result: Shade match after shade correction.

VITA classical A1–D4



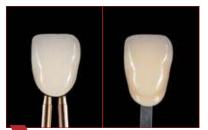
Note:

- Apply CHROMA STAINS in an even layer. They are used to systematically intensify the chroma within a shade group.
- Subsequent coating with GLAZE is not absolutely necessary.

Links/Tutorials:

• Learn more in tutorial videos: www.vita-zahnfabrik.com/tutorial/akzentlc/all/ifu/correctionc

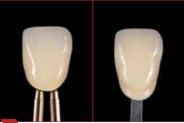
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2 Apply CHROMA STAIN M2 (red yellow) to achieve the chroma level 2.



3 Result: Shade match after shade correction.

VITA SYST	VITA SYSTEM 3D-MASTER						
corn-yellow	2L1.5 🔶 2L2.5	3L1.5 🔶 3L2.5	4L1.5 🔶 4L2.5				
M2 red-yellow	1M1 → 1M2 2M1 -	2M2 3M1 - 3M2	4M1 - 4M2 5M1 -	5M2			
M3 dark-yellow		2M2 → 2M3 3M2 -	▶ 3M3 4M2 → 4M3	5M2 → 5M3			
R light-red	2R1.5 🔶 2R2.5	3R1.5 🔶 3R2.5	4R1.5 🔶 4R2.5				

Note:

• After final polymerization, polish the characterized surface with a suitable polishing paste (such as Renfert Polish hybrid materials, for example) and a soft goat hair brush. Then use a dry cotton buff to achieve the final gloss.

Links/Tutorials:

• Learn more in tutorial videos: www.vita-zahnfabrik.com/tutorial/akzentlc/all/ifu/correction3d

3.10 Glazing with GLAZE



Add GLAZE into the mixing tray.



2 Apply GLAZE to the characterized restoration.



3 Cure GLAZE.



Final characterized and glazed crown.

Note:

- GLAZE is a transparent light-curing varnish for surface sealing.
- The EFFECT STAINS and CHROMA STAINS do not need to be coated with GLAZE.
- Use microbrush disposable applicators for the application of glaze.
- Apply GLAZE swiftly and without streaks.
- Close bottle immediately after use.

Please note:

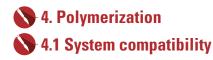
 All surfaces must be completely polymerized and hard. There must be no sticky surfaces.

🚹 Tip:

- After final polymerization, polish the glazed surface with a suitable polishing paste (such as Renfert Polish hybrid materials) and a soft goat hair brush. Then use a dry cotton buff to achieve the final gloss.
- GLAZE can be added to reduce the shade intensity of the EFFECT STAINS.

Note:

• For information on polymerization, see pages 25 - 27.





Note:

- For polymerization of VITA AKZENT LC, a light-curing device is required with light sources emitting rays in the wavelength range of < 430 nm! This requirement is met by numerous common light-curing units that emit light in the wavelength range of 350 to 500 nm.
- Various light sources can be used, such as:
 - Xenon flashlight bulbs
 - LED lamps
 - ∘ Halogen lamps.
- Fluorescent lamps are not recommended, since their heat emission is minimal.
- Light-curing devices require regular service to ensure their proper function.
- For fast and safe curing, temperatures of 60 °C 80 °C in the polymerization chamber must be ensured. Temperatures above 90 °C must be avoided.

4.2 Recommended polymerization devices/lamps

Dental-technical polymerization devices				
Company	Polymerization device	Polymerization time*	Note	
Shofu	Solidilite V	Three minutes	The object must be placed in the cone of light in the center of the chamber. The object must not be placed on the floor!	
Shofu	Solidilite EX	Four minutes	see Solidilite V	
DeguDent/Dentsply	Eclipse® junior VLC Curing Unit	Basic 3 = 3 min	Material group: in-joy The object must be placed in the center of the chamber.	
DeguDent/Dentsply	Triad [®] 2000	Six minutes	rotating on the rotary table	
Bredent	bre.Lux Power Unit 2	1 x program F1 (90 s)	-	
3M ESPE	Visio Beta vario	2 x program: 7 min incl. 10 s vacuum	_	
GC	Labolight Duo	Three minutes	The object must be placed in the cone of light high in the center of the chamber. The object must not be placed on the floor!	
Hager & Werken	Speed Labolight®	Three minutes	The object must be placed in the cone of light high in the center of the chamber. The object must not be placed on the floor!	
Kulzer	HiLite® power	90 seconds	The object must be placed high in the chamber. The object must not be placed on the floor!	
Kulzer	Heraflash	90 seconds	see HiLite Power	
Kulzer	UniXS®	90 seconds	see HiLite Power	
Kulzer	Dentacolor® XS	90 seconds	see HiLite Power	
Ivoclar Vivadent	Lumamat® 100	Heating level 0 VB = 0 VG = 10:00 min (BP = 10:00 min)	The times and heating levels must be programmed by the user! VB = Precuring VG = Tempering BP = Resulting curing time	

* The specified polymerization times are minimum times.

Note:

• Dental-technical polymerization devices are preferable to dental hand lamps, as they ensure a much more even exposure of the object.

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Dental polymerization lamps					
Company	Polymerization device	Polymerization time*	Note		
Ivoclar Vivadent	Bluephase G2	Four x 20 seconds	"High" mode		
Ultradent	VALO LED	Four x 20 seconds	"Standard" mode. The light cones of the two LEDs must completely overlap > a very small distance to the restoration is required.		

* The specified polymerization times are minimum times.

Please note:

- In order to ensure complete curing of VITA AKZENT LC, the polymerization devices must provide sufficient radiation intensity in the required wavelength range.
- Many dental hand lamps do not feature the wavelength range required for VITA AKZENT LC! Please observe the instructions for use of the manufacturer of your device.
- To avoid irritation of the mucous membrane, appropriate polymerization of VITA AKZENT LC STAINS and GLAZE must be ensured.

Note:

• You can find the latest information on the recommended polymerization devices at: www.vita-zahnfabrik.com/akzentlc



4. Polymerization > 5. Technical data/information

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VITA

5. Technical data/information 5.1 Chemical composition

VITA AKZENT LC				
Active ingredients	Wt%			
Methyl methacrylate and multifunctional methacrylates	30 - 40			
Urethane(meth-)acrylates	40 - 60			
Silicon dioxide	8-11			
Ethyl-phenyl(2,4,6-trimethylbenzoyl)phosphinate	2-6			
Other	< 1			
Pigments	< 2			

Patient target group:

• No restrictions

Intended user:

• Dental professionals only: dentist and dental technician

5.2 Indication overview

	VITA AKZENT LC
Approved for:	
° Restorations made (f hybrid ceramic (VITA ENAMIC)
• Restorations made	f light-curing material (e.g., VITA VM LC)
• Restorations made	f CAD/CAM composites (e.g., VITA CAD-Temp)
• Prefabricated teeth	
○ Denture bases (e.g.,	VITA VIONIC BASE)
• Restorations and de	nture bases made of 3D-print acrylic polymers

Intended use:

• VITA AKZENT LC products are dental materials for sealing or coating acrylics.

S.3 Contraindications

VITA AKZENT LC	
Not approved for:	
\circ Intraoral use \circ In patients with allergies or sensitivities to the ingredients	

Note:

• To avoid fast abrasion of the stain, VITA AKZENT LC should not be used at the occlusal contact points of restorations.

Please note:

- Successful outcomes with VITA AKZENT LC cannot be guaranteed in the following cases:
 - $^{\circ}$ inadequate polymerization devices with unsuitable wavelength/light intensity
 - ° insufficient pretreatment of the restoration or poor condition of the material surface to be characterized

S.4 Storage information

Note:

- Store VITA AKZENT LC at 4 °C to 25 °C (39 77 °F).
- Storage in a refrigerator is recommended.
- Do not use after the expiration date.
- 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.

S.5 Symbol explanations

Manufacturer VITA Zahnfabrik		Manufacturing date	
Shelf life	Σ	Protect from sunlight	×
Storage temperature	X	Lot number (batch)	LOT
Product number	REF	Medical device	MD
See Instructions for Use	Ĩ		

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5.6 Safety at work/health protection

Safety at work and health protection	When working with the product, wear suitable safety goggles/face protection and light respiratory protection.

S.7 Safety data sheets

VITA AKZENT LC EFFECT STAIL	NS/CHROMA STAINS/GI	AZE
	Danger	 Highly flammable liquid and vapor. Causes skin irritation. May cause allergic skin reactions. Causes serious eye damage. May cause respiratory irritation. Harmful to aquatic life with long-lasting effects Wear protective gloves/protective clothing/eye protection. Keep the container tightly closed. Protect from heat. No smoking.
VITA AKZENT LC CLEANER		
	Contains ethanol	 Highly flammable liquid and vapor. Causes severe eye irritation. Keep the container tightly closed. Protect from heat. Keep away from ignition sources.
VITA VM LC MODELLING LIQUI	D	
	Contains triethylene glycol dimethacrylate, 2-dimethylaminoethyl methacrylate.	 Causes skin irritation. Causes severe eye irritation. May cause respiratory irritation. May cause allergic skin reactions.
VITA ADIVA C-PRIME		
	Danger	 Highly flammable liquid and vapor. Keep away from heat/sparks/open flame/hot surfaces. No smoking.

VITA ADIVA CERA-ETCH		
	Caustic/toxic	 For extraoral use only! Contains hydrofluoric acid. Toxic if swallowed. Fatal in contact with skin. Causes severe skin burns and eye damage Harmful by inhalation. Wear safety goggles/protective gloves/protective clothing. 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.

Please note:

- Avoid contact of uncured material with the skin.
- Avoid contact of the material with clothing.
- VITA AKZENT LC is volatile and may cause respiratory irritation. Use the product in a well-ventilated room. Put the cap back on after use.

A Note:

- Please refer to the corresponding safety data sheets for detailed information.
- The corresponding safety data sheets can be downloaded at www.vita-zahnfabrik.com/sds.



N 5.8 General notes on handling

Product safety:

 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 htpps://www.vita-zahnfabrik.com/product_safety



5.9 VITA system solutions



* Optional process step: does not apply to the fabrication of monolithic restorations.

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 Fax +49 (0) 7761 / 56 22 99 8 a.m. to 5 p.m. CET E-mail: info@vita-zahnfabrik.com



Technical Hotline

If you have technical questions concerning VITA product solutions, you can contact Dr. Michael Tholey and his Technical Service team.

Phone +49 (0) 7761 / 56 22 22 Fax +49 (0) 7761 / 56 24 46 8 a.m. to 5 p.m. CET E-mail: info@vita-zahnfabrik.com

Additional international contact information can be found at www.vita-zahnfabrik.com/contacts



VITA VENEERING & STAINING SOLUTIONS -

For a lifelike play of shade and light in all facets of nature.

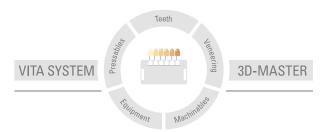


LIGHT CURING (LC)

> VITA AKZENT® LC: For reliable reproduction of all shade nuances

Universally applicable composite stains for natural and precise shade effects, accurate shade corrections and high shade/gloss retention.

You can find more information on VITA AKZENT LC at: www.vita-zahnfabrik.com/akzentlc



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: 2022-01

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 mark CE0124:

VITA AKZENT®LC, VITA VM®LC, VITA CAD-Temp®, VITA ENAMIC®

CERASMART® is a registered trademark of GC Dental Products Corp, Aichi, Japan.

The products/systems of other manufacturers mentioned in this document are registered trademarks of the respective manufacturers.

Rx only (only for professional use) MD

VITA

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