VITA AMBRIA® PRESS SOLUTIONS

Instructions for use / Full version

VITA shade determination | VITA shade communication | VITA shade reproduction | VITA shade control

VITA – perfect match.

The press ceramic system for brilliant, highly accurate and reliable restorations

Dear Customers,

Congratulations and thank you for choosing VITA AMBRIA!

With VITA AMBRIA PRESS SOLUTIONS, you can expect an ideally matched material system made of zirconia-reinforced lithium disilicate glass ceramic pellets and various system components.

To safely and simply process all VITA AMBRIA system components, please read the processing instructions all the way through before the first use.

For detailed information on the accompanying system components, please read all the working instructions provided in the relevant chapter for the system component.

We hope you enjoy VITA AMBRIA and achieve great results!

Your VITA Product Management Team

Explanation of symbols:

- System/technology info
- Please note
- Note
- Note
- Process
- Tips
- Links/Tutorials

Note:

- What? Zirconia-reinforced lithium disilicate glass ceramic press system.
- What for? For the production of delicate reconstructions such as veneers, inlays/onlays, as well as full/partial crowns and three-unit bridges, up to the second premolars.
- With what? The press ceramic system includes press ceramic pellets in four levels of translucency (T/HT/ST/MO), an investment ring system, investment material and liquid, as well as press plungers.

1. Processes

VITA AMBRIA – Efficiency with system.

*) Optional process step: does not apply for monolithic restorations.

1.1 Restoration concepts and processing variants

Degree of translucency	Processing technique		Indications										
	Staining technique	Veneering technique/ partial veneering	Occlusal veneer*	Veneer	Inlay	Onlay	Partial crown	Anterior crown	Posterior crown	Bridge anterior tooth region	Bridge premolar region	Abutment (mesostructure)	Abutment crown
MO Medium Opacity**	○	●	○	○	○	○	○	●	●	●***	●***	●	●
T Translucent	●	●	○	○	○	○	○	●	●	●	●	●	●
HT High Translucent	●	○	●	●	●	●	●	○	○	○	○	○	○
ST Super Translucent**	●	–	○	●	●	●	○	–	–	–	–	–	–

● recommended ○ possible – not recommended

*) Partial veneering must not be used for occlusal veneers (Table Tops)
**) The ST and MO types are only offered as an S pellet.
***) Weight limitation, as currently only available as an S pellet.

Note:

Available materials

- **VITA AMBRIA MO (Medium Opacity):**
  The MO pellets are very well suited for reliably masking discolored dies or titanium abutments, due to their opacity.
- **VITA AMBRIA T (Translucent):**
  The T-pellets are particularly suitable for the production of crowns and three-unit bridges using veneering or staining technique, due to their lower translucency and matching to the respective dentine shade.
- **VITA AMBRIA HT (High Translucent):**
  The HT pellets are especially suitable for the fabrication of inlays, onlays, veneers and partial crowns, thanks to their greater translucency and a shade determination that corresponds to a dentine / incisal edge mixture.
- **VITA AMBRIA ST (Super Translucent):**
  The ST pellets are primarily suitable for inlays, onlays and veneers, thanks to their high translucency and pronounced chameleon effect.
- **Power Glaze:**
  Use VITA AKZENT PLUS GLAZE LT, the Power Glaze brand to perform Power Glaze firing.
- **Manual polishing:**
  VITA Ceramics Polishing Set for professional pre-polishing and high-gloss polishing.
- **Staining technique:**
  VITA AKZENT PLUS STAINS, GLAZE LT and FLUOGLAZE LT for shade characterization and glazing of VITA AMBRIA restorations.
- **Veneering technique:**
  VITA LUMEX AC for veneering anatomically reduced restorations made of VITA AMBRIA.

1.2 Additional information about the AMBRIA MO press pellets

The following shades are available:

Note:

- The information for the classification of AMBRIA MO pellets for the VITA tooth shades are recommendations. The shade or shade effect of a full veneer on all-ceramic frameworks not only depends on the framework shade, but also on the substructure (discolored dies, titanium abutments), as well as the bonding material used, and therefore additional materials (veneering) or stains or paste ceramics (characterization) may have to be added.

Classification VITA AMBRIA MO pellets for full veneers;

VITA classical A1-D4

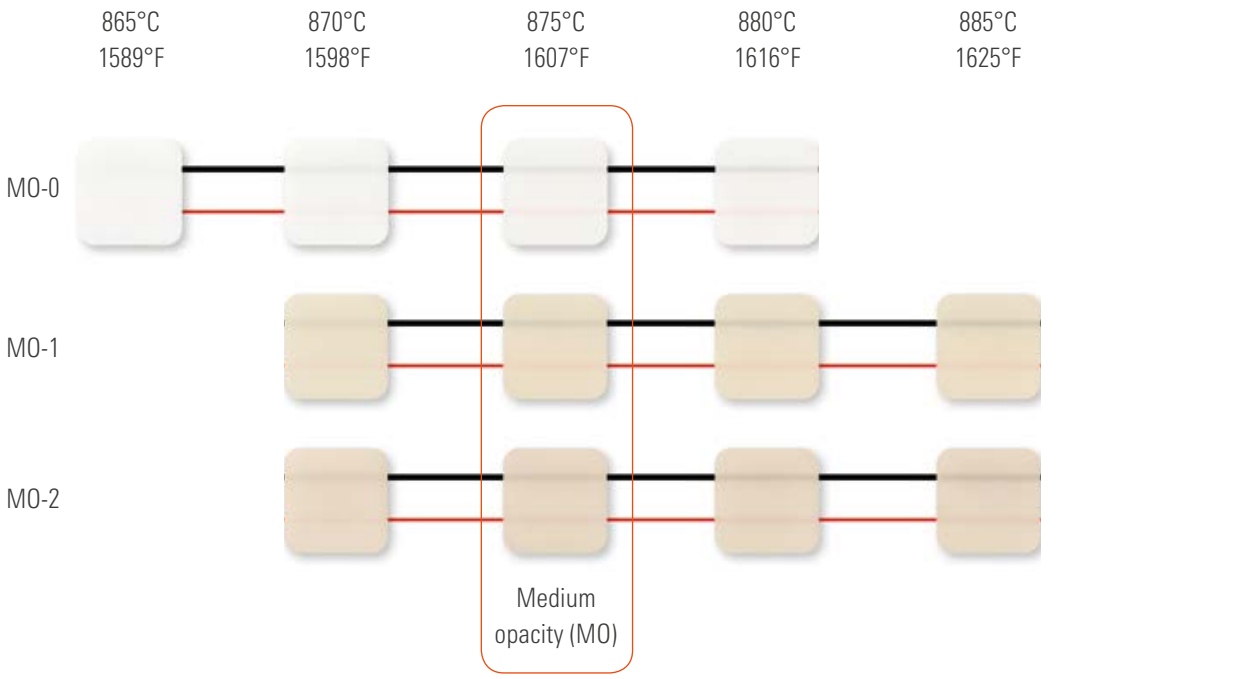
Tooth shade	A1	A2	A3	A3.5	A4	B1	B2	B3	B4	C1	C2	C3	C4	D2	D3	D4
Pellet shade	M0-1	M0-1	M0-2	M0-2	M0-2	M0-0	M0-1	M0-2	M0-2	M0-1	M0-1	M0-1	M0-2	M0-1	M0-2	M0-1

VITA SYSTEM 3D-MASTER

Tooth shade	0M1	0M2	0M3	1M1	1M2	2L1.5	2L2.5	2M1	2M2	2M3	2R1.5	2R2.5	3L1.5	3L2.5	3M1
Pellet shade	M0-0			M0-1			M0-2	M0-1				M0-2			M0-1

Tooth shade	3M2	3M3	3R1.5	3R2.5	4L1.5	4L2.5	4M1	4M2	4M3	4R1.5	4R2.5	5M1	5M2	5M3
Pellet shade	M0-2				M0-2		M0-1	M0-2						

Change in the degree of translucency in VITA AMBRIA MO press pellets (using a **200 g investment ring** as an example)**:**



Note:

- The press parameters for MO pellets can be found on page 41. **The adjustment of translucency for the 100 g investment rings has the same temperature intervals, but shifts to 10 °C lower temperatures.**

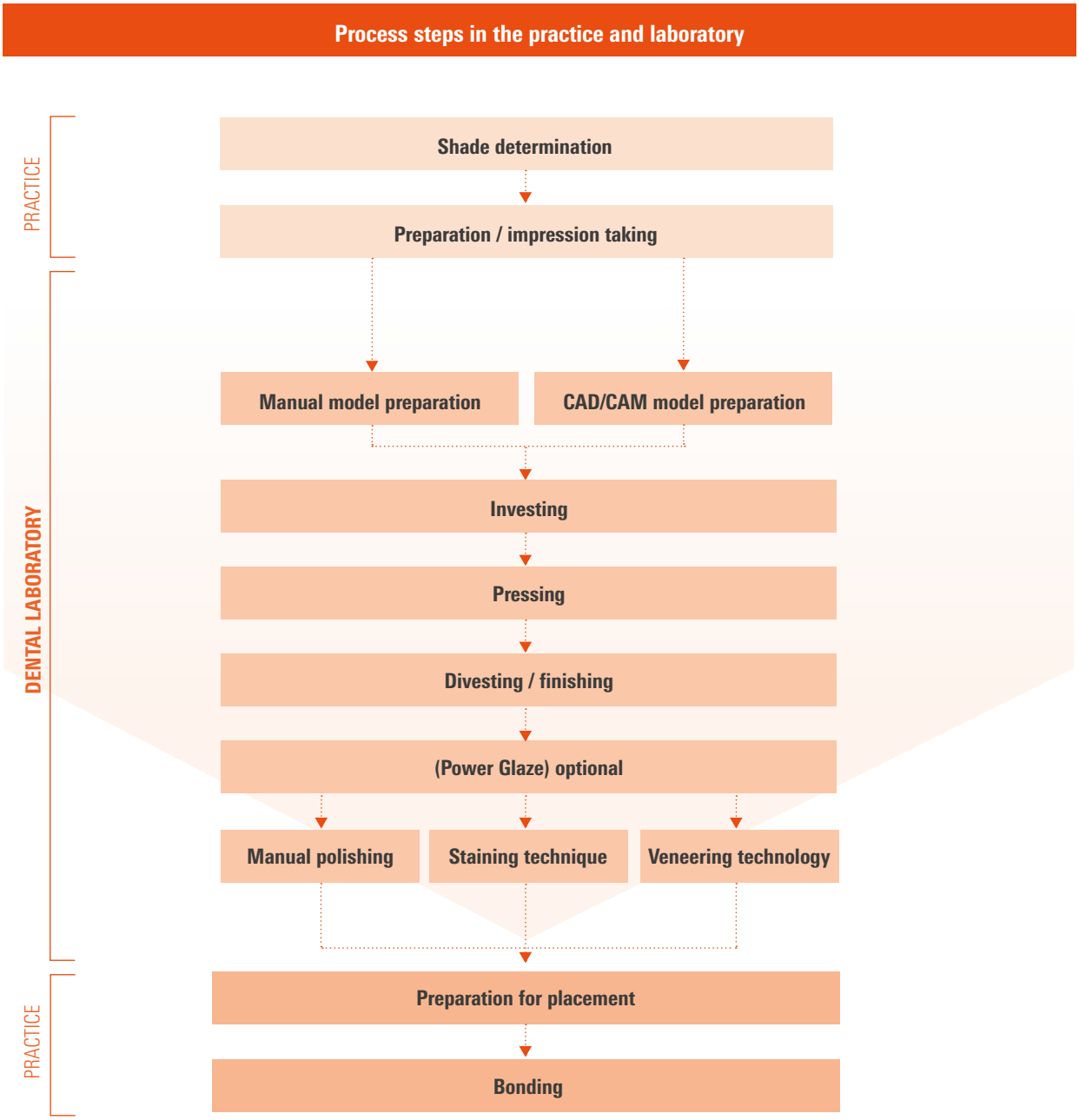
Note:

- The specified pressing temperatures for the change in translucency are reference values and depend on the respective press furnace (control by regular calibration, for example). If necessary, the pressing temperatures must be tested in advance by means of test pressings and adjusted individually, if required.

Please note:

- **The option of changing the translucency is only available for Ambria MO press pellets!**

1.3 Workflow/process options for fabrication variants



2. Design guidelines

2.1 Design parameters

Minimum thicknesses of VITA AMBRIA for staining technique (measurements in mm)								
	Occlusal Veneer	**Veneer**	**Inlay/ Onlay**	**Partial crown**	**Crowns**		**Bridges**	
					Anterior tooth	**Posterior tooth**	**Anterior area**	**Premolar area**
circumfer-ential	1.0	0.3–0.6	1.0 isthmus width	1.5	1.2	1.5	1.2	1.5
incisal / occlusal	1.0	0.4–0.7	1.0	1.5	1.5	1.5	1.5	1.5

Minimum thicknesses of VITA AMBRIA in the cut-back technique (values in mm)								
	Occlusal Veneer	**Veneer**	**Inlay/ Onlay**	**Partial crown**	**Crowns**		**Bridges**	
					Anterior tooth	**Posterior tooth**	**Anterior tooth**	**Posterior tooth**
circumfer-ential	–	0.4	–	1.5	1.2	1.5	1.2	1.5
incisal / occlusal	–	0.5	–	0.8	0.4	0.8	0.8	0.8
Minimum layer thicknesses of VITA AMBRIA (substructure material) for the veneering technique (values in mm)								
circumfer-ential	–	–	–	–	0.6	0.8	0.8	0.8
incisal / occlusal	–	–	–	–	0.6	0.8	0.8	0.8
Design type	–	–	–	–	**supporting the tooth shape** lingual/palatal - fully anatomical design			
Connector cross section	–	–	–	–	–	–	16 mm^2	16 mm^2
max. pontic width	–	–	–	–	–	–	11	9

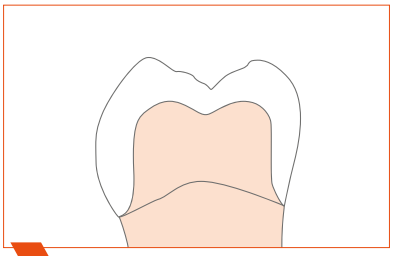
The high-strength substructure made of VITA AMBRIA press ceramic must make up at least 50% of the total thickness of the final restoration. The total thickness (depending on the indication) of the restoration results from the following:

	Veneer	**Inlay/ Onlay**	**Partial crown**	**Crowns**		**Bridges**	
				Anterior tooth	**Posterior tooth**	**Anterior area**	**Premolar area**
VITA AMBRIA substructure thickness	0.4	0.5	0.6	0.8	1.0	1.2	1.5
+							
Maximum layer thickness of veneering with VITA LUMEX AC	0.4	0.5	0.6	0.7	0.8	1.0	1.3
=							
Total thickness of the veneered restoration	**0.8**	**1.0**	**1.2**	**1.5**	**1.8**	**2.2**	**2.8**

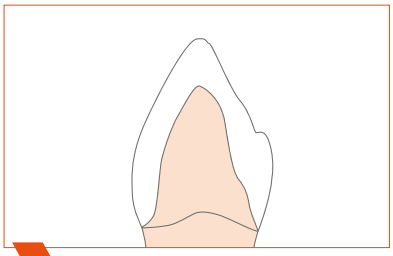
Note:

- With veneering, a reduced substructure that supports the tooth shape is pressed, and then supplemented with the veneering ceramic VITA LUMEX AC to build up the tooth into its complete shape.
- Occlusal veneers, inlays and onlays are not suitable for the veneering.
- A uniform layer thickness of VITA LUMEX AC across the entire surface to be veneered must be ensured.
- However, VITA LUMEX AC should not exceed a layer thickness of 1.5 mm. A layer thickness of between 0.7 and 1.2 mm is ideal.
- Long-term cooling for wall thicknesses > 2.0 mm!

2.2 Design of fully anatomical restorations



Posterior crown design

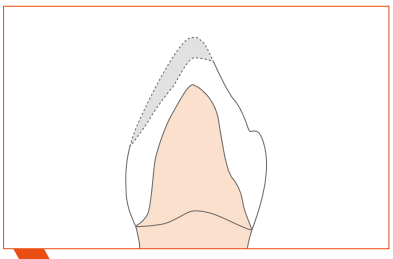


Anterior crown design

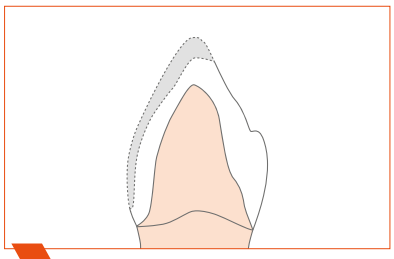
Note:

- The applicable minimum wall thicknesses for the respective material variant must be observed.
- The goal is to obtain a uniform wall thickness.

2.3 Design for cut-back and veneering technique



Anterior substructure design for cut-back



Anterior substructure design for the veneering technique. Lingual/palatal fully anatomical design supporting the tooth shape (observe permissible wall thicknesses on page 10!)

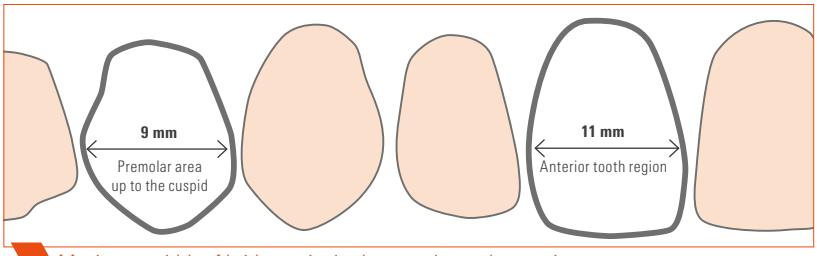
Note:

- Sharp edges on the substructure should generally be avoided.
- Minimum wall thicknesses for substructures must be observed.
- When designing substructures, an anatomically reduced tooth shape must be observed.
- The cusp should be supported according to the anatomical progression.
- A uniform layer thickness of the veneer across the entire surface to be veneered must be ensured.

Please note:

- For implant-supported restorations, depending on the fabrication process, sharp edges may exist on the abutment which may cause fracture of the respective superstructures during the period of wearing. These sharp edges must be avoided in general and can be rounded off, for example, with wax before the scan.

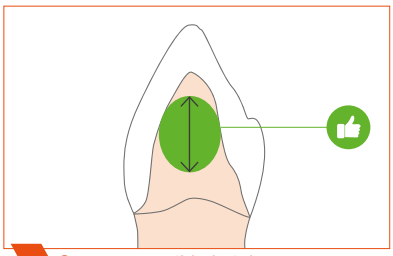
2.4 Design of the connectors for bridges



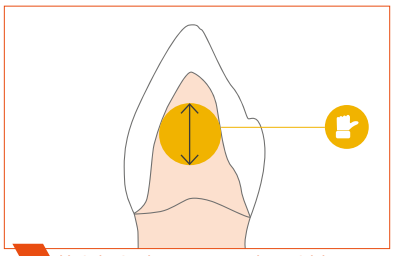
Maximum width of bridge units in the anterior and posterior areas

Please note:

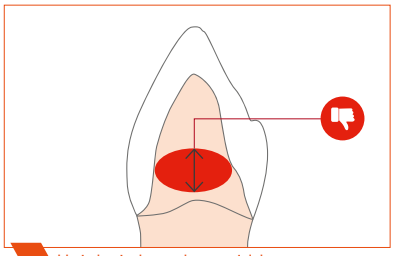
- The maximum approved bridge unit widths in the anterior and premolar areas are different, due to the differing height of the chewing load.
- The approved bridge unit width in the anterior tooth region is 11 mm. In the premolar region (from the cuspid up to the second premolar), it is 9 mm, These limits must not be exceeded.



Greatest possible height



Height is the same as the width



Height is less than width

Note:

- The height of the connector surfaces is the highest possible that can be selected (Fig. 1).
- The height should be at least as high as the width (Figs. 1 and 2).
- Sharp corners and edges are to be avoided.

3. Model preparation

3.1 Model and stump preparation

1 Master model with removable stumps.

2 Model after the application of stump hardener.

Note:

- A die model or saw-cut model is created as a working model.
- Undercuts must be blocked out.
- Application of stump hardener for surface hardening and to protect the stump is recommended.
- The stump hardener must not result in a change of volume of the stump.

3.2 Spacer application

1. Layer of spacer up to a max. of 1 mm to the preparation margin of the veneer.

2. Layer spacer. Identical procedure for crowns.

1. Layer of spacer up to a max. of 1 mm to the preparation margin.

2. Layer of spacer for anterior and posterior bridges.

3. Layer of spacer to the intercoronal surfaces of the abutment teeth.

1. Layer of spacer - procedure for inlays, onlays and partial crowns

2. Layer spacer.

3. Layer spacer.

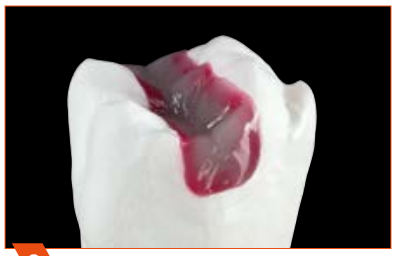
Note:

- The application of the spacer should be +/-10 µm per layer.
- For VITA AMBRIA restorations on abutments, proceed in a manner similar to that for natural stumps.

3.3 Fully anatomical model preparation

1 Fully anatomical wax model preparation of an anterior crown.

2 Fully anatomical wax model preparation of a posterior crown.



3 Wax model preparation of an inlay.

4 Margin fitting of an inlay model preparation.

Note:

- After model creation and stump preparation, the wax model of the restoration is prepared.
- Before the investment, contact points should be minimally reinforced.
- Especially in the case of inlays, care should be taken to achieve a good margin fit.

3.4 Model preparation for veneering / cut-back

1 Fully anatomical wax model preparation of a bridge.

2 Place silicone key before the reduction.

3 Check reduction of the model preparation with the silicone key.

1 Fully anatomical wax model preparation of a veneer.

2 Reduction in the upper third for cut-back.

Note:

- First prepare a fully anatomical model of restorations, and then do the cut-back.
- Reduce the wax model preparation in the incisal third in the cut-back technique.
- Do not design extreme mamelons, which can create points and edges.
- The minimum wall thickness of the press material and layer material must be observed.

Please note:

- For conventional model preparation, only organic, residue-free, combustible waxes may be used.
- Observe the stipulated minimum layer thicknesses and connector cross-section dimensions with regard to processing technique and indication.
- A precise wax-up of the restoration must be observed, in particular at the preparation margins.
- Over-modeling at the preparation margins must be avoided so that a time-efficient finishing process is guaranteed after pressing.
- For a precise fit of fully anatomical restorations after the application of stain and glaze, disengage the wax-up, as the materials cause a minimal change in volume.

3.5 CAD/CAM model preparation

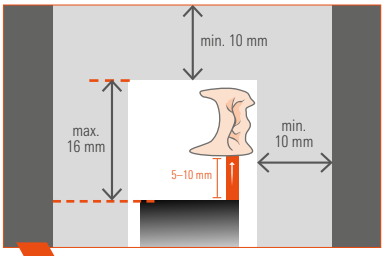
Note:

- The following steps must be completed when using CAD/CAM model preparation:
  - Scan the model
  - Design with design software
  - Mill the restoration out of milling waxes or milling acrylics

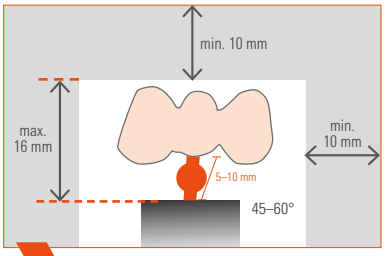
Please note:

- Milling waxes, milling acrylics or acrylics for 3D printing must first be checked for residue-free combustion.
- Observe the stipulated minimum layer thicknesses and connector cross-section dimensions.
- When using milling acrylics or acrylics for 3D printing:
  - To avoid unevenness on the surface of the investment material during heating, acrylics must be coated with a thin layer of wax. In this case, it is recommended to shorten the crown margin by approx. 1-2 mm and to wring it with cervical wax.

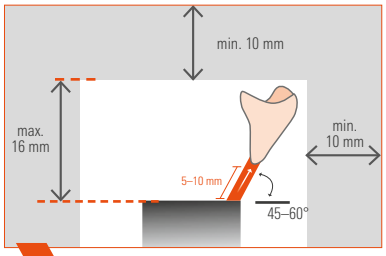
3.6 Spruing 100 g / 200 g investment ring system



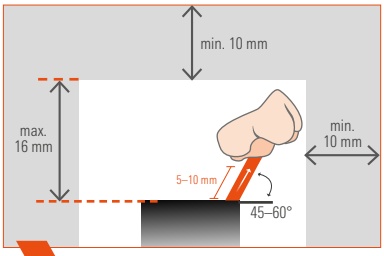
Inlay in 100 g investment ring



Three-unit bridge



Veneer or anterior crown



Posterior crown, onlay, partial crown

Note:

- In order to achieve a trouble-free flow during the press process, the spruing must always be in the flow direction and at the strongest point.
- Observe a 10 mm minimum distance between the wax objects and the silicone ring.
- Do not exceed the maximum length (wax object + sprues) of 16 mm.
- Sprue the restoration on the investment base at a 45 – 60° angle.
- Check for correct spruing with the aid of the silicone ring.

Tip:

- For easier investing, it is recommended that the crowns be sprued with the inside up.

Links/tutorials:

- Learn more in tutorial videos: www.vita-zahnfabrik.com/tutorial/ambria/all/ifu/sprue

3.7 Process for spruing

Attaching the sprues		
	Single tooth restorations	**Three-unit bridges**
Investment base	100 g and 200 g	200 g
Wax wire	ø 3 - 4 mm; for bridges with a "sprue reservoir"	
Length of wax wire	min. 5 mm, max. 10 mm	
Length of wax wire incl. object	max. 16 mm	
Sprue attachment point at the wax object	strongest site of the model preparation	at the bridge pontic
Sprue angle to the wax object	axial	
Sprue angle on the investment base	for 100 g investment ring: 80-90°; for 200 g investment ring: 45-60°	
Design of the sprue attachment points	round and slightly tapered, no sharp angles and edges	
Distance between the objects	min. 3 mm	
Distance to the silicone ring	min. 10 mm	

	S-Pellet (small pellet)	**L-Pellet (large pellet)**
Wax weight	up to a max. of 0.75 g	up to a max. of 1.7 g
Muffle system	100 g and 200 g	only 200 g

Please note:

- Prior to investing, the wax weight (including the sprues) must be determined to select the required VITA AMBRIA press pellet.
- Different types of restorations (e.g., inlays and crowns) cannot be invested with each other since the investment material must be mixed in a different ratio, depending on the type of restoration.
- Depending on the muffle system (100 g / 200 g), there are different guidelines for spruing.
- The 200 g investment ring should be sprued at a 45 - 60° angle, and the 100 g investment ring should be steeper, at an angle of 80 - 90°.
- Depending on the number and/or the weight of the restorations, the 100 g or 200 g muffle system is selected.
- When using a Programat EP 500 (Ivoclar Vivadent), please note the following:
  If only one object is invested, a second short (blind) sprue must be attached. This ensures that the switch-off function of the furnace is properly activated at the end of the pressing procedure.

4. Investing / pressing / divesting

4.1 Expansion control

Liquid concentration		
Indication	**Mixing liquid [%]**	**dist. water [%]**
Crown	60 – 70	40 – 30
Three-unit bridge	65 – 75	35 – 25
Veneer, table top	50 – 60	50 – 40
Inlay (one-/two-surface)	35 – 45	65 – 55
MOD inlay	40 – 50	60 – 50
Onlay	85 – max. 90	15 – 10

Mixing ratios for different concentrations of the mixing liquid

Mixing ratio in % = mixing liquid : water (dist.) in ml		
Concentration	**100 g**	**200 g**
25 %	6 : 17	12 : 34
30 %	7 : 16	14 : 32
35 %	8 : 15	16 : 30
40 %	9 : 14	18 : 28
45 %	10 : 13	20 : 26
50 %	11.5 : 11.5	23 : 23
55 %	13 : 10	26 : 20
60 %	14 : 9	28 : 18
65 %	15 : 8	30 : 16
70 %	16 : 7	32 : 14
75 %	17 : 6	34 : 12
80 %	18.5 : 4.5	37 : 9
85 %	19.5 : 3.5	39 : 7
90 %	20.5 : 2.5	41 : 5

Note:

- For premolar and anterior crowns, it should be noted that the higher expansion value will result in enhanced fit of thin and small-sized preparations.
- Expansion values given above are reference values, Deviations from this are possible, due to different preparation templates, preheating furnaces, press temperatures, etc.
- When using acrylics, the expansion may deviate from the table above.

Please note:

- Use a total of 23 ml of liquid for 100 g of powder.
- Use a total of 46 ml of liquid for 200 g of powder.

4.2 Investing

1 Before investing, check wax weight and spruing.

2 Fill investment material in a thin stream up to the restorations.

3 Fill in investment material up to the margin.

4 Set the timer for at least 20 minutes to adhere to the required time period.

Note:

- Investment is performed with the VITA AMBRIA INVEST investment material. For investing, use the appropriate VITA AMBRIA MUFFEL SYSTEM.

Please note:

- Wax releasing agents can be used for bubble-free press results. These reduce the surface tension of the waxes and increase the flowability of the investment material by wetting with a fine mist.
- Observe a processing temperature of the investment material of 18 up to a max. of 25 °C.
- Stir investment material, avoiding the inhalation of dust while doing so. Wear a mask.
- Finely invest the cavities with a thin instrument (e.g., a small brush) and make sure that the fine wax margins are not damaged.
- Place silicone ring on investment ring without damaging the wax objects.
- The silicone ring must sit flush on the investment base.
- Carefully fill the investment ring under light vibration up to the margin.
- Allow the investment ring to set while avoiding any vibrations.
- After a setting time of 20 - 30 minutes, place the investment ring in the preheating furnace.

Note:

- Detailed information on the processing of the investment material can be found in the VITA AMBRIA INVEST Instructions for use 920-02800.

Investing process		
Process	**Duration**	**Clarification**
1. Manual stirring	Mix by hand for 20-30 seconds	First add the required quantity of liquid to the beaker. Then add the investment material. Use a spatula to stir the investment material by hand until the powder has been wetted thoroughly.
2. Machine stirring	60 seconds	Mix for 60 seconds under vacuum. Proper function of the vacuum stirrers must be checked repeatedly. Inadequate vacuum results in inaccurate fit and bubbles on the casting.
3. Investing	–	Fill the ring with investment material: the vibrator should only be used if the flow behavior needs to be improved. Avoid excessive vibration! This will lead to the formation of bubbles and breakdown of the mixture.

Please note:

- The processing time span is five to nine minutes at approx. 21 °C room temperature.
- The processing time span depends on the room temperature, and heat shortens the processing time.

4.3 Preheating

1 Remove the investment ring with a turning movement.

2 Break the edges of the investment ring without allowing investment material to fall into the channel.

3 Place the investment ring in the furnace with the opening facing down. No contact with the furnace wall.

! Single-use press stamps and pellets must not be preheated.

4.3.1 Investing process

Investing process when using wax		
Process	**Duration**	**Clarification**
1. Setting of the investment material	At least 20 min. At least 30 min.	Remove the investment ring former and investment base after 20 minutes.
2. Placing the investment ring	After no more than 30 min. at 850 °C	Straighten bottom of the investment ring (e.g., plaster knife)
3. Preheating the investment ring	When setting the investment ring	Preheating temperature 850°C, preheat furnace in good time!
Holding time	100 g investment ring: at least 50 min. 200 g investment ring: at least 75 min.	Once the preheating temperature (850 °C) has been reached again. If three 100 g or two 200 g investment rings or more are placed in the preheating furnace, the holding time must be increased by 15 minutes.

Investing process when using acrylics		
Process	**Duration**	**Clarification**
1. Setting of the investment material	At least 20 min. At least 30 min.	Remove the investment ring former and investment base after 20 minutes.
2. Placing the investment ring	After max. 30 min. at max. 250 °C	Straighten bottom of the investment ring (e.g., plaster knife)
3. Preheating the investment ring	60 min. at 250 °C	Preheating temperature max. 250 °C
4. Heating rate	10 °C/min.	Heating to end temperature (850 °C)
Holding time	100 g investment ring: at least 50 min. 200 g investment ring: at least 75 min.	Once the end temperature has been reached (850 °C). If three 100 g or two 200 g investment rings or more are placed in the preheating furnace, the holding time must be increased by 15 minutes.

Note:

- The following additional steps are required to prepare for preheating:
  - Carefully remove defects from the bottom of the investment ring using a plaster knife.
  - Ensure an upright position (90° angle).
  - When preheating several investment rings, mark the rings with the pellet shades.

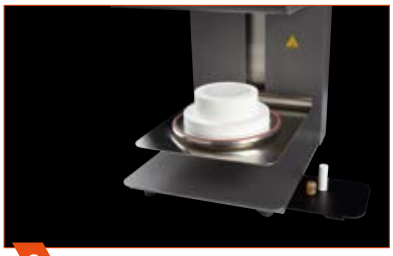
Please note:

- When performing multiple speed investments, there should be a time lag between each one.
- The investment rings should be transferred to the preheating furnace in intervals of approx. 20 minutes.
- When loading the preheating furnace, take care that the furnace temperature does not drop too much.
- The indicated holding time applies once the preheating temperature has been reached again.
- **To avoid overfiring, when processing acrylics, the investment ring must be placed in the preheating furnace at 250 °C and held for one hour. Then gradually heat it up.**
- When placing overnight, the investment ring is placed in the cold furnace. When 250 °C is reached, this is maintained for an hour. The heat is then raised further in increments of 10 °C. If necessary, a special temperature control of the acrylics used must be observed. Please follow the manufacturer's instructions in this respect.
- To avoid the risk of discoloration caused by metal oxides, do not place the investment ring with other casting objects (metal casting rings) or solder models into the preheating furnace.

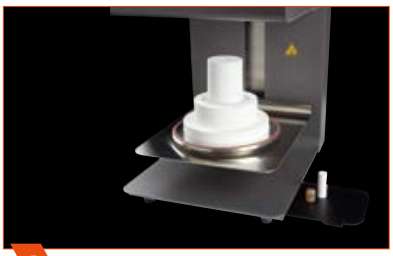
4.4 Pressing

1 The target temperature is shown on the display once it is reached.

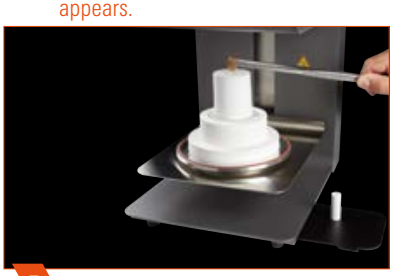
2 After opening the furnace, the message "Insert press material" appears.



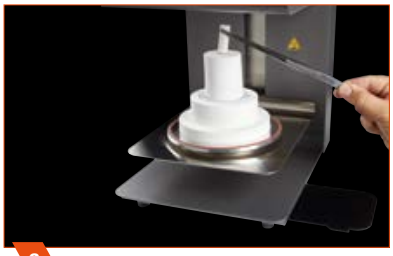
3 Prepare a cold press pellet and a cold plunger in the required shade.



4 Place the hot investment ring on the universal press disc.



5 Insert the press pellet with the logo side up.



6 Place the disposable press plunger with the point up on the pellet.

7 Start the press process using the start button.

8 After removing the investment ring, allow it to cool in a protected place.

Loading the ring		
	100 g investment ring	**200 g investment ring**
Single tooth restorations	one small pellet (S)	one small pellet (S) or one large pellet (L)
Three-unit bridges	–	max. one large pellet (L)
Press pellet and disposable press plunger	fill with cold pellets	

Note:

- Aluminium oxide press plungers are unsuitable due to their thermal conductivity properties and can lead to undesired color differences in the press object.
- Switch the press furnace (VITA VACUMAT 6000 MP) on early in order to complete the preheating phase in time. Alternatively, a press program for warming up can also be run.
- Call up the press program for VITA AMBRIA in the desired translucency level and have the desired pellet ready.
- Place hot investment ring in the hot press furnace within 30 seconds after removal from the preheating furnace.
- Remove the investment ring immediately after pressing with the muffle tongs from the press furnace.

Please note:

- Do not speed up cooling – no blowing with pressurized air.
- The press pellets can only be used once.

4.5 Divesting

1 Determine the press depth by marking with a second press plunger.

2 Cut deep into the investment material along the marking.

3 Split the investment material carefully using a knife on the predetermined breaking point.

4 Perform rough divestment with Al_2O_3 (50 µm grain size) at a pressure of 4 bar.

5 Fine divestment and removal of reaction layer with abrasive glass beads at a pressure of 2 bars.

6 Final blasted restoration without reaction layer.

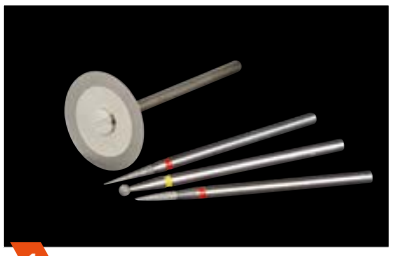
Note:

- The investment rings are divested by sandblasting using Al_2O_3 (50 µm). Rough divestment can be carried out at a pressure of 4 bars. Fine divestment and preparation of the crown margins is carried out using abrasive glass beads at a pressure of 2 bars.
- Completely remove the reaction layer both inside and outside, as residues of the reaction layer can lead to bonding problems between the press ceramic and the veneering ceramic.

Please note:

- The restorations must be blasted at a flat angle.
- When divesting, in order not to damage the pressed restorations around the margins, the required direction of blasting and the distance to the object need to be observed.

4.6 Finishing for monolithic restorations



1 Separate and process with suitable grinding instruments only.

2 Separate press sprue with a thin diamond separating disc.

3 Restoration with separated press sprue.

4 Fit restoration and check contact points.

5 Grind press sprue.

6 Before the first firing, grind the surface completely with a suitable grinding instrument and finish individually.

7 Clean grinding dust and contact agents from surface.

4.7 Finishing for veneering technique

1 Fit restoration and grind press sprues.

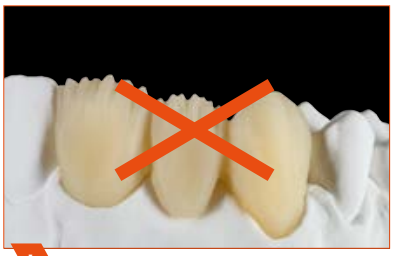
2 Inspect cut-back with silicon key. Limit reduction to the incisal third.

3 Before the first firing, grind the surface completely with a suitable grinding instrument and finish the restoration. Aim for round transitions.

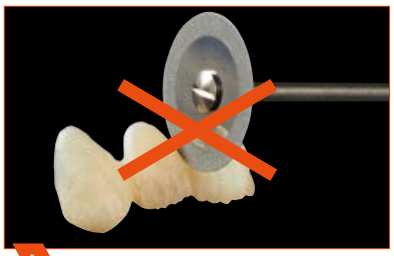
4 Restoration on the model after finishing.

5 Blast restoration with Al_2O_3 and at a max. of 2 bar pressure.

6 Clean the restoration thoroughly with a steam jet before partial veneering.



! Avoid pointed edges and deep fissures in the morphology of mamelons.



! Do not separate the restoration with a separating disc to avoid predetermined breaking points.

Note:

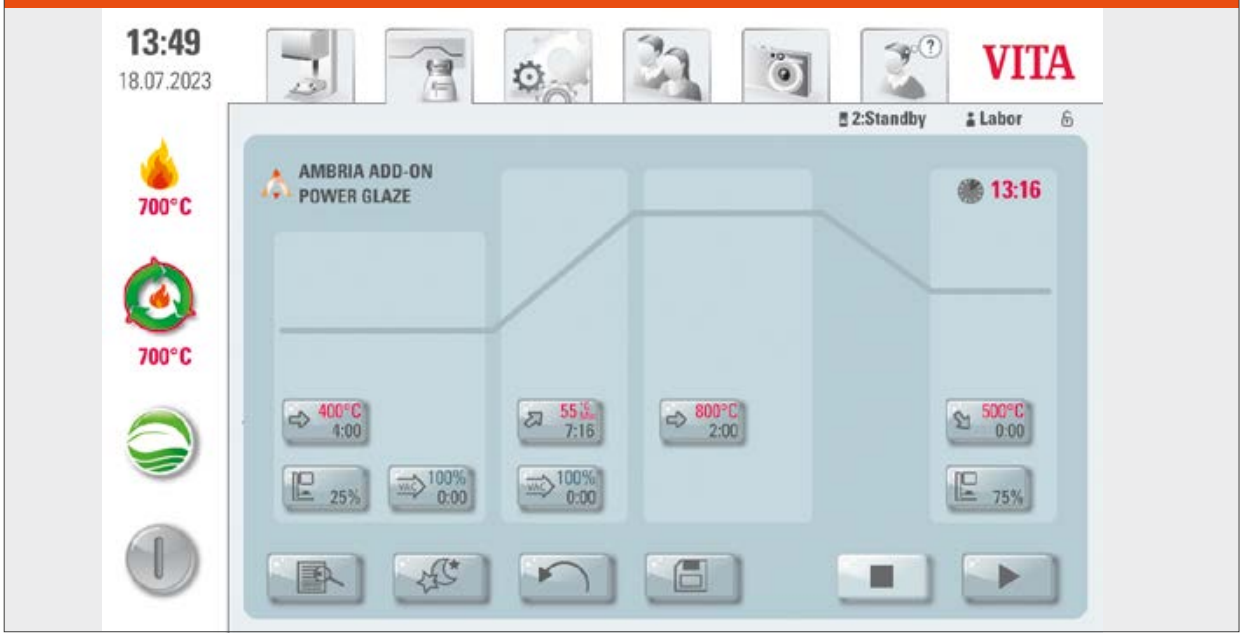
- Only work with suitable abrasives (special glass ceramic abrasives or fine grain diamonds), and avoid overheating of the glass ceramic. We recommend the VITA CERAMICS Polishing Set
- Using a thin diamond disc with low pressure application and continuous moistening, separate the press sprue at the greatest possible distance from the object to avoid possible cracking.
- Remove spacer from the model die and carefully check the fit of the restoration and adjust it.
- Check approximal / occlusal contact points and grind, if needed.
- Carefully adjust the attachment point of the sprue.
- Once the sprues have been separated and milled, the entire outer surface of the restoration must be ground with a suitable grinding instrument.

Please note:

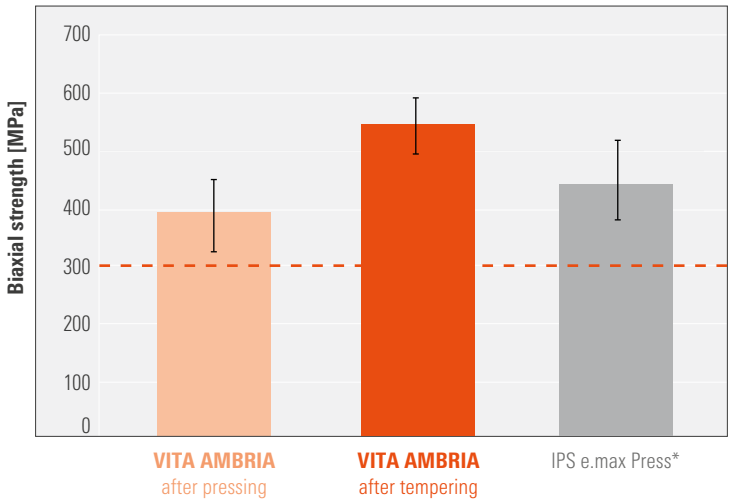
- Unsuitable grinding instruments and high pressure can cause local overheating or chipping of the margin.
- Keep adjustments to a minimum.
- Do not separate the bridge connectors with the help of a cutting disc, as this will result in predetermined breaking points.
- Minimum wall thicknesses must be ensured when finishing/adjusting the restoration!

4.8 POWER GLAZE (optional)

Parameters for VITA AMBRIA Power Glaze



Biaxial strength



Standard DIN EN ISO 6872

Source: Internal study, VITA R&D, Measurement of biaxial strength of abovementioned materials in accordance with ISO 6872 (with modified sample geometry), (Gödiker, 1/2019, [1] see back of prospectus)
*) Level of strength after pressing process.
Tempering is not specified by the manufacturer.

Note:

- Once the restoration has been finished and fitted, Power Glaze firing can be carried out.
- This can be performed for every restoration, regardless of whether it is then polished, stained or veneered. It is carried out with the VITA AKZENT Plus GLAZE LT glaze material and causes superficial smoothing of the processed restoration, as well as contributing to an increase in strength.

Please note:

- After Power Glaze firing, the restoration must not be sandblasted again, as this will further reduce the strength.
- During long-term cooling, the lift position should be at 75 %.

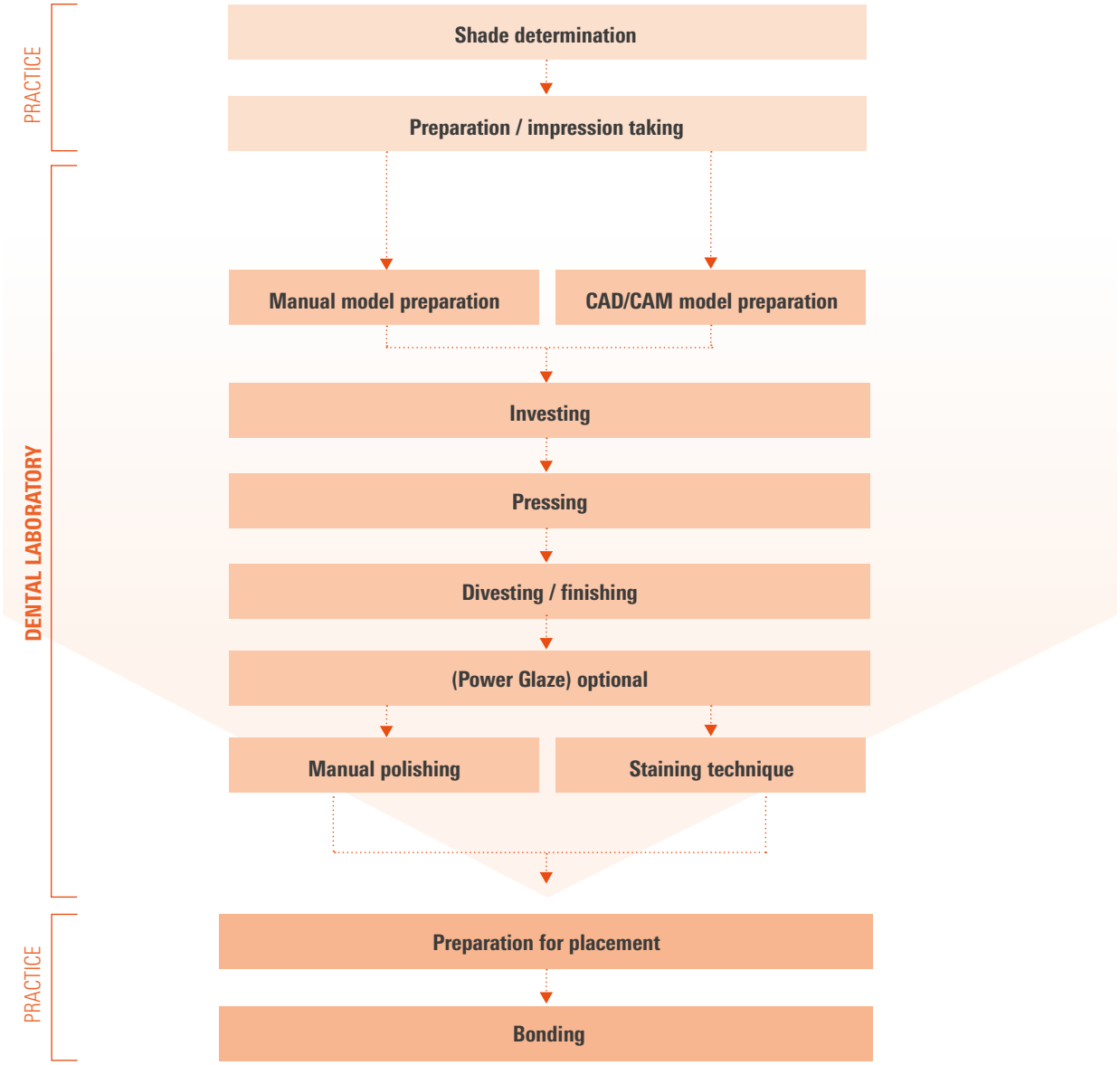
Note:

- For more information on the firing parameters, please refer to the chapter Shade reproduction/Firing under item 7.4 in these Instructions for Use.

5. Staining technique / polishing

5.1 Workflow options for monolithic restorations

Process steps in the practice and laboratory



Note:

- Workflow for monolithic restorations (manual polishing or staining technique) made from VITA AMBRIA Press Pellets.

5.2 Manual polishing

1 Crown after Power Glaze (optional)

2 Polishing 1. with a pre-polishing wheel and 2. with a fine high-gloss polishing wheel.

3 Optionally increase the degree of gloss with the use of polishing paste.

4 Clean using a steam jet.

5 Polished restoration.

Note:

- It is also possible to manually adjust the degree of gloss after Power Glaze firing by polishing with the fine high-gloss polishing wheel only,
- Pre-polishing with the dark grey VITA CERAMICS polishing instruments at a speed of 7,000 - 10,000 rpm is optional.
- Perform high-gloss polishing with the light grey VITA CERAMICS polishing instruments at a speed of 4,000 – 8,000 rpm.

Please note:

- Avoid generation of heat while polishing!
- Ensure a reduced and uniform pressure.

Tip:

- An even higher degree of gloss can be achieved with diamond polishing paste (e.g., VITA Polish Cera).

Note:

- For information on bonding restorations made of VITA AMBRIA, please refer to the chapter on bonding under item 7.8 in these Instructions for Use.

5.3 Staining technique

1 Thoroughly clean the restoration to remove grinding dust.

2 Optional: crown with completed Power Glaze.

3 Then use stains for buccal and ...

4 … occlusal characterization and glaze.

5 Restoration after firing.

! Alternatively, you can also work with GLAZE LT spray glaze.

Note:

- The VITA AKZENT Plus stain and glazing materials are available for characterization.
- Clean the pressed restorations with a steam jet prior to staining to remove grease or dirt residues.
- To intensify the shading, repeat the application of shade, instead of applying the shade more thickly.
- To improve the wettability, apply VITA AKZENT Plus Fluid to the surface to be stained.

Please note:

- Restorations made of VITA AMBRIA and VITA LUMEX AC must be glazed with VITA AKZENT Plus GLAZE LT.
- Poor gloss will result if glaze material is applied too thinly. Avoid excessive application of glaze material and the formation of puddles.
- When using the glazing spray, spray the glaze on evenly from a distance of 10 to 15 cm while pressing the valve intermittently.
- The inner surfaces of the restoration must not be sprayed with the glazing spray.
- To increase strength, Power Glaze firing can be performed beforehand.
- Long-term cooling for wall thicknesses > 2.0 mm

5.4 Recommendations on characterization and glazing

Note:

- **Characterization with stains**
  - VITA AKZENT Plus stains can be used for individual characterization.
  - To intensify the shade in the body of the tooth, the VITA AKZENT Plus CHROMA STAINS are available.

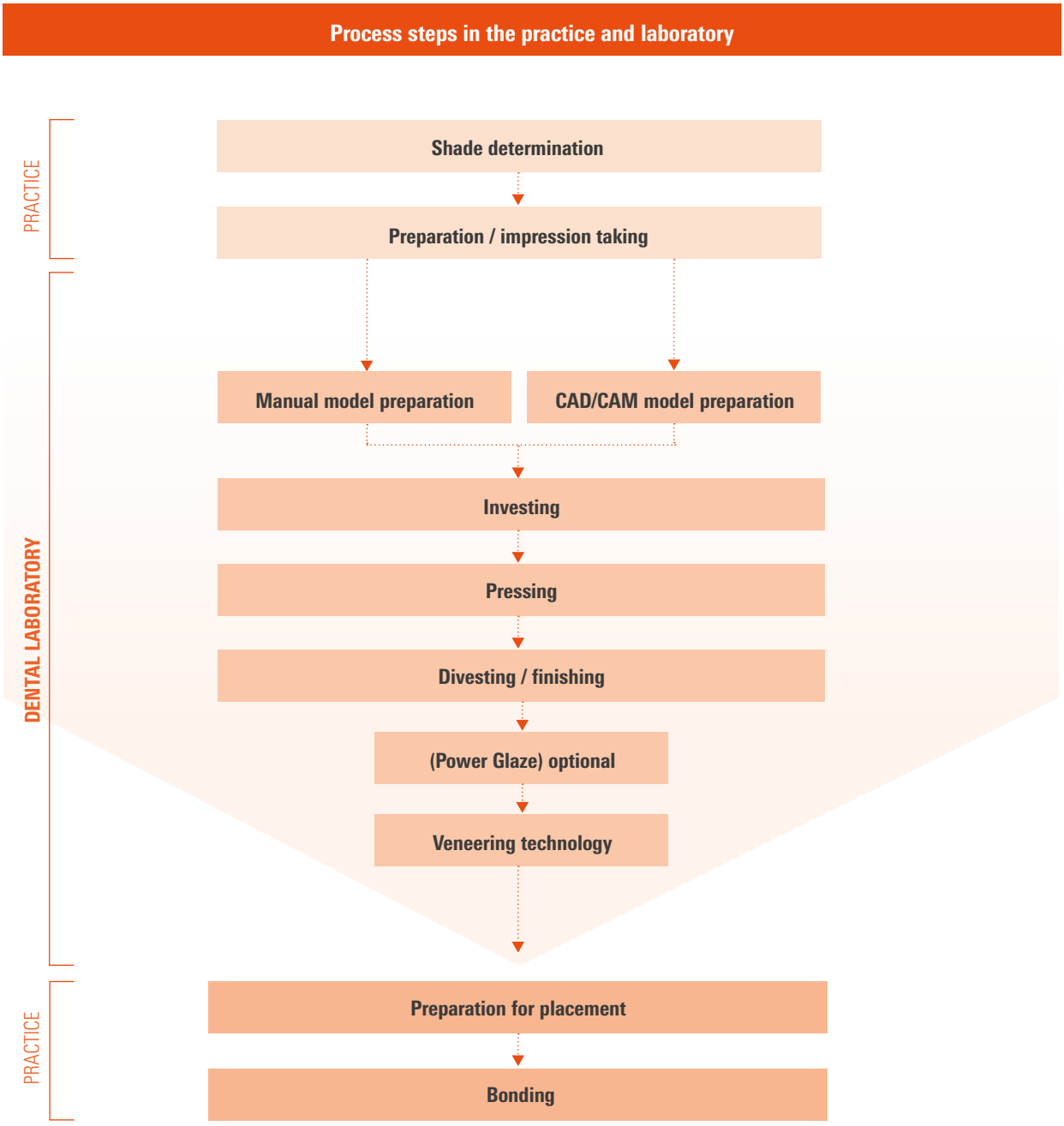
- **Glaze firing with glazing materials**
  - The glaze firing can be done with either powder, pastes or spray materials.
  - VITA AKZENT Plus FLUOGLAZE LT Spray is available for increasing fluorescence.
  - Glaze material on the inner surfaces of the restoration must be removed with a brush BEFORE firing.
  - Long-term cooling for wall thicknesses > 2.0 mm

Note:

- Detailed information on characterization and glazing can be found in the VITA AKZENT PLUS Working Instructions, No. 1925.
- For more information on the firing parameters, please refer to the chapter on shade reproduction/firing under item 7.4 in these Instructions for use.
- For information on bonding restorations made of VITA AMBRIA, please refer to the chapter on bonding under item 7.8 in these Instructions for Use.

6. Veneering technique

6.1 Workflow for veneered restorations



Note:

- Workflow for veneered restorations (cut-back) made of VITA AMBRIA press pellets.

6.2 Cut-back and veneering example: bridge restoration

1 Cleaned restoration after Power Glaze (optional).

2 Filling out the shape with VITA LUMEX AC enamel and translucency materials.

3 Restoration after the first firing.

4 If necessary, perform shape corrections and fire again.

5 Final finished restoration after the second firing.

6 Completed restoration after glaze firing.

6.3 Cut-back and veneering example: veneer restoration

1 Fit the restoration after the press process, grind with a suitable grinding instrument, finish and reduce.

2 Optional: restoration after completion of Power Glaze

3 Filling out the shape with VITA LUMEX AC enamel and translucency materials.

4 Veneer after the first firing

5 Final restoration after high-gloss polishing.

Note:

- With the cut-back technique, VITA LUMEX AC translucency and incisal materials are applied to the reduced VITA AMBRIA restoration in the incisal or occlusal area.
- The anatomical shape is completed again with the VITA LUMEX AC materials.

Please note:

- When adding VITA LUMEX AC in the cut-back technique, a washbake is NOT required.
- VITA LUMEX AC MODELLING LIQUID is recommended for mixing VITA LUMEX AC materials.
- Power Glaze can be carried out beforehand.

Note:

- For detailed information on veneering, please see the VITA LUMEX AC Instructions for Use, No. 10605.
- For more information on the firing parameters, please refer to the chapter on shade reproduction/firing under item 7.4 in these Instructions for use.
- For information on bonding restorations made of VITA AMBRIA, please refer to the chapter on bonding under item 7.8 in these Instructions for Use.

Tip:

- This is how you can fire your restoration safely and reliably without firing paste.
  Inlay: https://www.instagram.com/reel/CkLf4-xDv1s/
  Krone: https://www.instagram.com/reel/Cck6Df1qPEq/

Inlay

Crown

7. Shade reproduction/firing

7.1 Shade reproduction using staining technique

7.1.1 VITA classical A1-D4

Characterizing a fully anatomical restoration with VITA AKZENT PLUS			
VITA classical A1-D4 Tooth shade	**Pellet shade**	**CHROMA STAINS**	**EFFECT STAINS**
A1	A1	–	**Individual application:** ES01–ES07 **Incisal:** ES10, ES11, ES12, ES13
A2	A2	–	
A3	A3	–	
A3.5	A3.5	–	
A4	A3.5	CS A	
B1	B1	–	
B2	B2	–	
B3	B3	–	
B4	B3	CS B	
C1	C1	–	
C2	C2	–	
C3	C3	–	
C4	C3	CS C	
D2	D2	–	
D3	D3	–	
D4	D3	CS D	

7.1.2 VITA SYSTEM 3D-MASTER

Characterizing a fully anatomical restoration with VITA AKZENT PLUS			
VITA SYSTEM 3D-MASTER Tooth shade	**Pellet shade**	**CHROMA STAINS**	**EFFECT STAINS**
0M1	0M1	–	**Individual application:** ES01–ES07 **Incisal:** ES10, ES11, ES12, ES13
0M2	0M1	CSM2 + ES01	
0M3	0M3	–	
1M1	1M1	–	
1M2	1M2	–	
2L1.5	2M1	CSM2* + CSL*	
2L2.5	2M2	CSM3* + CSL*	
2M1	2M1	–	
2M2	2M2	–	
2M3	2M2	CSM3	
2R1.5	2M1	CSM2* + CSR*	
2R2.5	2M2	CSM3* + CSR*	
3L1.5	3M1	CSM2* + CSL*	
3L2.5	3M2	CSM3* + CSL*	
3M1	3M1	–	
3M2	3M2	–	
3M3	3M2	CSM3	
3R1.5	3M1	CSM2* + CSR*	
3R2.5	3M2	CSM3* + CSR*	
4L1.5	4M1	CSM2* + CSL* + 1/5 CSIO	
4L2.5	4M2	CSM3* + CSL* + 1/5 CSIO	
4M1	4M1	–	
4M2	4M2	–	
4M3	4M2	CSM3 + 1/5 CSIO	
4R1.5	4M1	CSM2* + CSR* + 1/5 CSIO	
4R2.5	4M2	CSM3* + CSR* + 1/5 CSIO	

Note:

- Detailed information on characterization and glazing can be found in Instructions for Use No. 10375 (VITA AKZENT Plus CHROMA STAINS) and No. 1925 (VITA AKZENT Plus).

7.2 Shade reproduction using veneering

7.2.1 VITA classical A1-D4 shades

Characterizing a fully anatomical restoration with VITA AKZENT PLUS						
Tooth shade	**Pellet shade**	**VITA LUMEX AC enamel materials**	**VITA LUMEX AC DENTINE**	**VITA LUMEX AC translucent materials**	**CHROMA STAINS**	**EFFECT STAINS**
A1	A1	light	A1	**INDIVIDUAL APPLICATION:** **OPAL TRANSLUCENT** opal-neutral opal-sky opal-azure **TRANSLUCENT** smoky-white light-blonde misty-rose sunlight sun-intense deep-blue water-drop foggy-grey **PEARL** shell	–	**Individual application:** EFFECT STAINS ES01–ES07 **Incisal application:** EFFECT STAINS ES10, ES11, ES12, ES13
A2	A2	light	A2		–	
A3	A3	light	A3		–	
A3.5	A3.5	medium	A3.5		–	
A4	A3.5	medium	A4		CS A	
B1	B1	medium	B1		–	
B2	B2	medium	B2		–	
B3	B3	medium	B3		–	
B4	B3	medium	B4		CS B	
C1	C1	medium	C1		–	
C2	C2	medium	C2		–	
C3	C3	light	C3		–	
C4	C3	light	C4		CS C	
D2	D2	medium	D2		–	
D3	D3	medium	D3		–	
D4	D3	medium	D4		CS D	

7.2.2 VITA SYSTEM 3D-MASTER shades

Characterizing a fully anatomical restoration with VITA AKZENT PLUS						
Tooth shade	**Pellet shade**	**VITA LUMEX AC enamel materials**	**VITA LUMEX AC DENTINE**	**VITA LUMEX AC translucent materials**	**CHROMA STAINS**	**EFFECT STAINS**
0M1	0M1	*light/smoky white	0M1	**Individual application:** **ENAMEL** Clear fog **OPAL TRANSLUCENT** opal-neutral opal-sky opal-azure **TRANSLUCENT** smoky-white light-blonde misty-rose sunlight sun-intense deep-blue water-drop foggy-grey **PEARL** shell	–	**Individual application:** EFFECT STAINS ES01–ES07 **Incisal application:** EFFECT STAINS ES10, ES11, ES12, ES13
0M2	0M1	*light/smoky white	0M2		CSM2 + ES01	
0M3	0M3	*light/smoky white	0M3		–	
1M1	1M1	light	1M1		–	
1M2	1M2	light	1M2		–	
2L1.5	2M1	light	2L1.5		CSM2* + CSL*	
2L2.5	2M2	light	2L2.5		CSM3* + CSL*	
2M1	2M1	light	2M1		–	
2M2	2M2	light	2M2		–	
2M3	2M2	light	2M3		CSM3	
2R1.5	2M1	light	2R1.5		CSM2* + CSR*	
2R2.5	2M2	light	2R2.5		CSM3* + CSR*	
3L1.5	3M1	medium	3L1.5		CSM2* + CSL*	
3L2.5	3M2	medium	3L2.5		CSM3* + CSL*	
3M1	3M1	light	3M1		–	
3M2	3M2	light	3M2		–	
3M3	3M2	light	3M3		CSM3	
3R1.5	3M1	light	3R1.5		CSM2* + CSR*	
3R2.5	3M2	medium	3R2.5		CSM3* + CSR*	
4L1.5	4M1	light	4L1.5		CSM2* + CSL* + 1/5 CSIO	
4L2.5	4M2	light	4L2.5		CSM3* + CSL* + 1/5 CSIO	
4M1	4M1	light	4M1		–	
4M2	4M2	intense	4M2		–	
4M3	4M2	intense	4M3		CSM3 + 1/5 CSIO	
4R1.5	4M1	light	4R1.5		CSM2* + CSR* + 1/5 CSIO	
4R2.5	4M2	intense	4R2.5		CSM3* + CSR* + 1/5 CSIO	

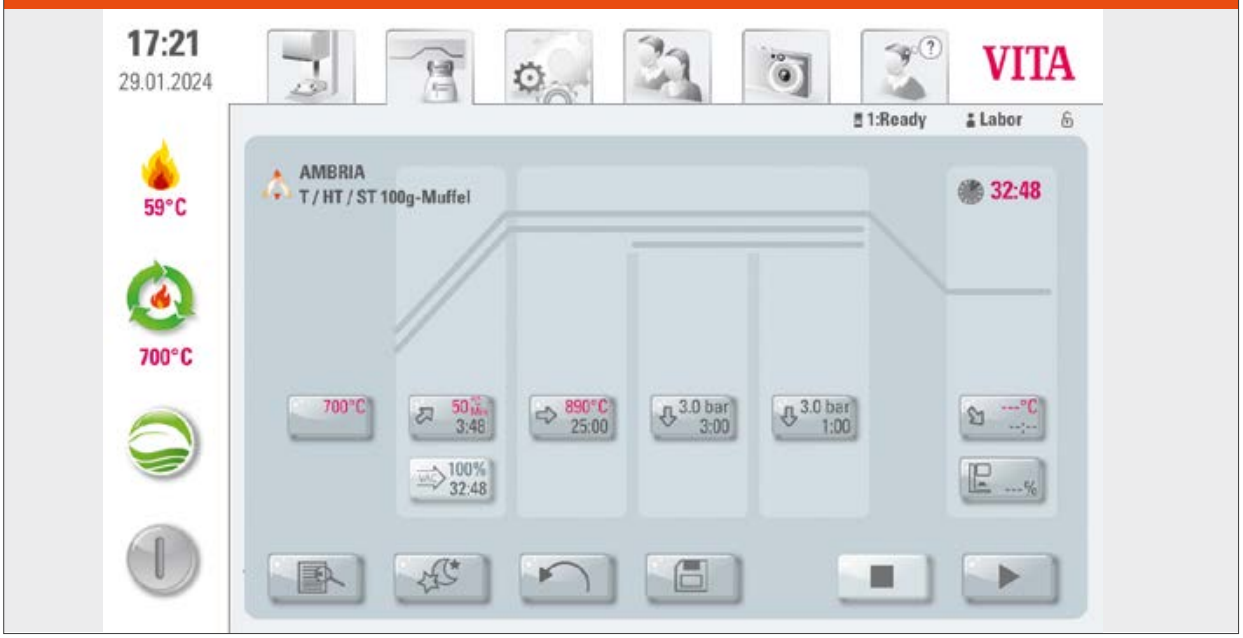
* 50/50% Mischung

Note:

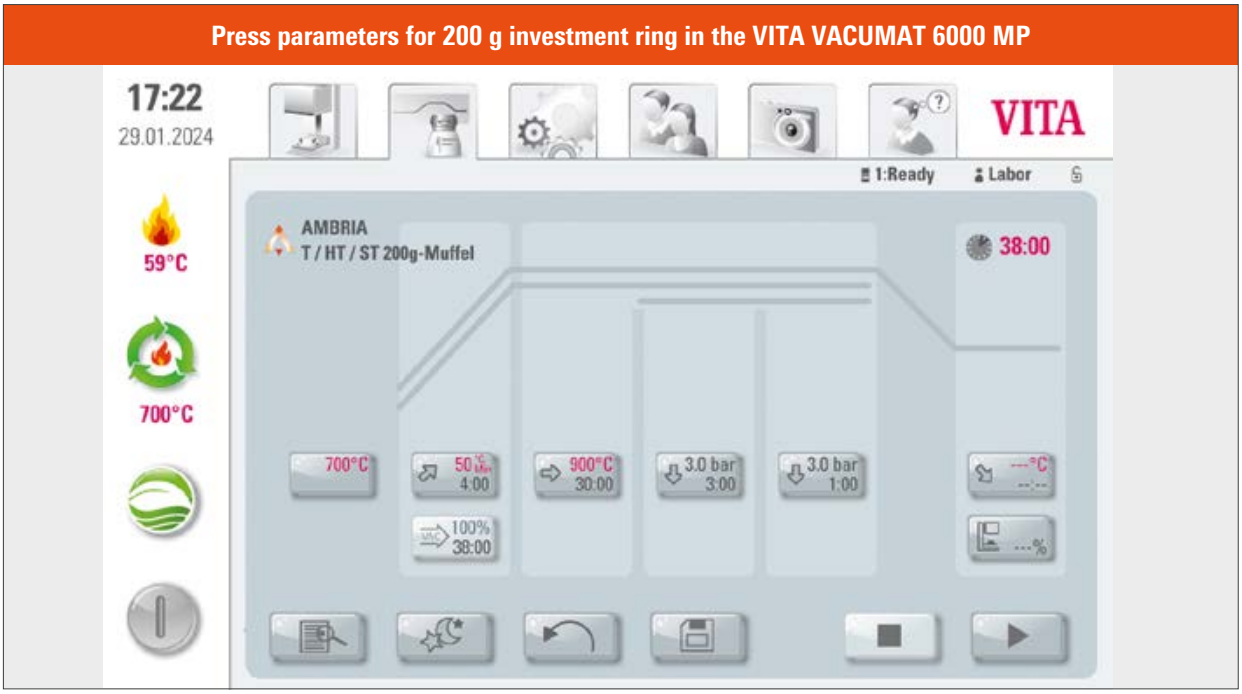
- For detailed information on veneering, please see the VITA LUMEX AC Instructions for Use, No. 10605.

7.3 Press parameters VITA AMBRIA T, HT and ST pellets

Press parameters for 100 g investment ring in the VITA VACUMAT 6000 MP



Press parameters for 200 g investment ring in the VITA VACUMAT 6000 MP



Note:

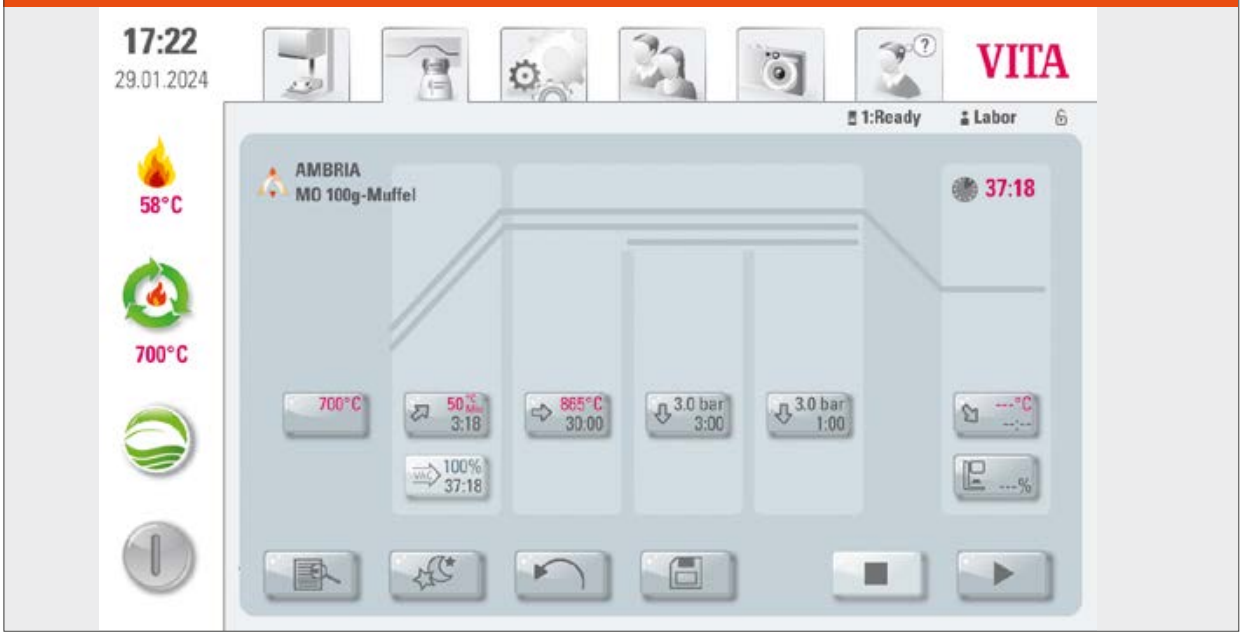
- The recommended press parameters apply for T, HT and ST pellets.

Please note:

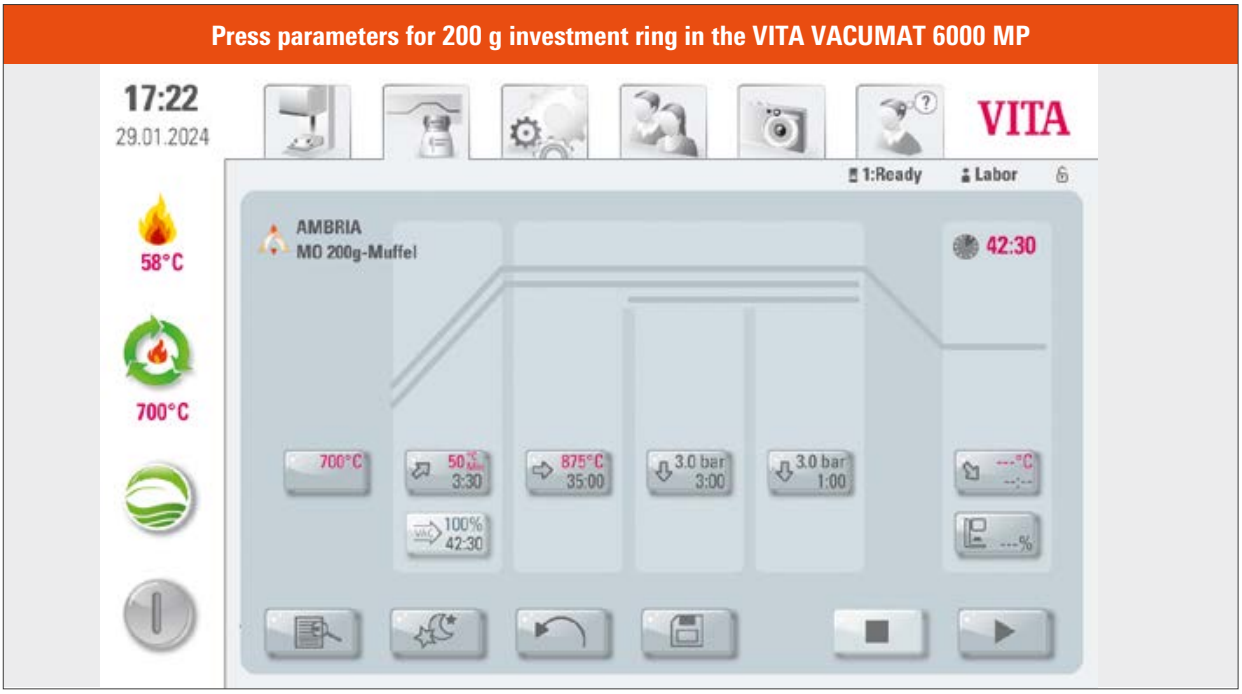
- **Calibration of the press furnace:**
  A correct press temperature is essential for the quality and result of the restoration.
  For the first press, we recommend investing a wax mesh together with the restoration.
  Based on the appearance of the grid, you can evaluate the pressing result using the calibration chart and adapt the pressing temperature accordingly. Note Calibration Chart No. 10642 for this purpose.

7.3.1 Press parameters VITA AMBRIA MO pellets

Press parameters for 100 g investment ring in the VITA VACUMAT 6000 MP



Press parameters for 200 g investment ring in the VITA VACUMAT 6000 MP

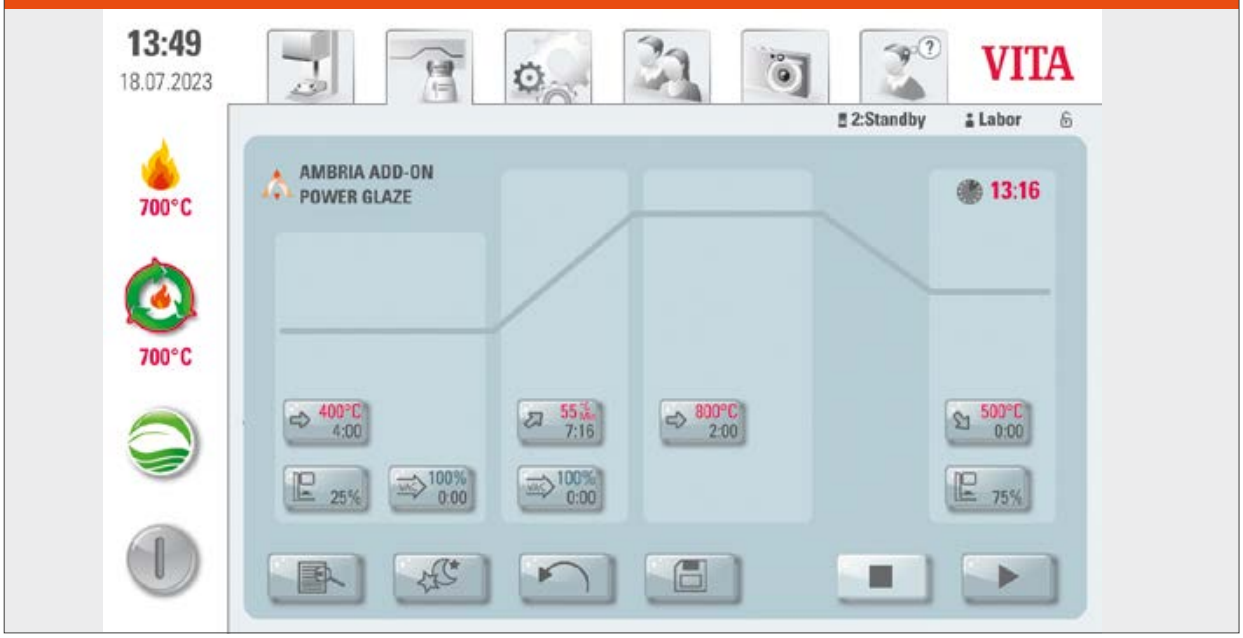


Note:

- Additional document for press parameters for various press furnaces can be found on our website: VITA_10636_10636D_AMBRIA_Pressparameter

7.4 POWER GLAZE (optional)

Parameters for VITA AMBRIA Power Glaze (optional)



Note:

- Power Glaze firing can be carried out for every restoration using VITA AKZENT Plus GLAZE LT.
- It causes superficial smoothing of the processed restoration and contributes to an increase in strength to 550 MPa.

Please note:

- After Power Glaze firing, the restoration must not be sandblasted again, as this will reduce the strength again.
- During long-term cooling, the lift position should be at 75 %.
- To avoid contamination or adhesion, the use of honeycomb trays and platinum pins is recommended.
- Firing paste can be used for the fabrication of an individual firing tray and to support the restoration. **Only small** quantities of firing paste should be applied to the pin for fixation of the restoration. The restoration must not be filled with firing paste.

Tip:

- This is how you can fire your restoration safely and reliably without firing paste.
  Inlay: https://www.instagram.com/reel/CkLf4-xDv1s/
  Krone: https://www.instagram.com/reel/Cck6Df1qPEq/

Inlay

Crown

7.5 Firings for staining / Glazing

Firing parameters for staining technique with VITA AKZENT Plus								
VITA VACUMAT 6000 M	**Pre-dry. °C**	**→ min**	**↗ °C/min**	**↗ min**	**approx. temp. °C**	**→ min**	**VAC min**	**↘ °C**
Power Glaze (optional)	400	4:00	55	7:16	800	2:00	–	500*
Stains fixation	400	4:00	80	3:44	700	1:00	–	–
glazing	400	0:00	80	4:22	750	1:00	–	500*
Glaze with GLAZE LT Powder	400	4:00	50	7:00	750	1:00	–	500*
Glaze with GLAZE LT Spray	400	6:00	50	7:00	750	1:00	–	500*
Glaze with GLAZE LT Paste	400	8:00	50	7:00	750	1:00	–	500*

7.6 Firings for veneering technique

Firing parameters for veneering with VITA LUMEX AC								
VITA VACUMAT 6000 M	**Pre-dry. °C**	**→ min**	**↗ °C/min**	**↗ min**	**approx. temp. °C**	**→ min**	**VAC min**	**↘ °C**
Power Glaze (optional)	400	4:00	55	7:16	800	2:00	–	500*
1. Dentin	400	6:00	50	7:12	760	1:00	7:12	–
2. Dentin	400	6:00	50	7:06	755	1:00	7:12	500*
Stains fixation	400	4:00	80	3:44	700	1:00	–	–
Glazing	400	0:00	80	4:22	750	1:00	–	500*
Glaze with GLAZE LT Powder	400	4:00	50	7:00	750	1:00	–	500*
Glaze with GLAZE LT Spray	400	6:00	50	7:00	750	1:00	–	500*
Glaze with GLAZE LT Paste	400	8:00	50	7:00	750	1:00	–	500*
Correction	400	4:00	50	6:30	725	1:00	6:30	500*

*) Long-term cooling down to the respective temperature is recommended for the respective last firing cycle. The lift position for VITA VACUMAT 6000M furnaces should be > 75%. The fired items must be protected from drafts after opening the furnace.

7.7 Recommendations for firing

Note:

- The use of ceramic trays and posts is not recommended, since the restorations may stick to them.
- If ceramic trays and posts are still used, it is recommended that they be covered with platinum foil or a small amount of VITA Firing Paste to avoid direct contact with the restoration.
- If other, untested furnaces are used, the following should always be observed:
  - Furnaces must have a function for controlled long-term cooling, as well as a vacuum.
  - Calibrate the furnace before the first use of VITA AMBRIA. Adhere to the manufacturer's specifications when calibrating.
- After the firing process, remove VITA AMBRIA restorations from the furnace and allow to cool to room temperature, protected from drafts. Restorations that are still hot must not be touched with metal tongs, blasted or quenched.

Please note:

- Fibrous pad firing supports and platinum pins are recommended for firing.
- The firing parameters provided are matched to the VITA VACUMAT furnaces (optimal adjustment to the VITA VACUMAT 6000 series).
- If a VITA furnace is not used, temperature adjustments by +/- 5 °C up to a max. of +/- 10 °C may be necessary.

Tip:

- To avoid excessive glazing or underfiring, the firing temperature should be checked regularly.

7.8 Bonding

7.8.1 Bonding recommendation

VITA AMBRIA	Adhesives Bonding	Self-adhesive Bonding	Conventional Bonding
Veneers	●	–	–
Inlays, onlays, partial crowns	●	–	–
Anterior crowns	●	●	○
Posterior crowns	●	●	○
Three-unit bridge	●	●	–

● recommended ○ possible – not possible

7.8.2 Procedure

Material	**VITA AMBRIA** Zirconia-reinforced lithium disilicate glass ceramic.
Indication	Veneers, inlays, onlays, partial crowns, anterior and posterior crowns, three-unit bridges up to the second premolar
Type of bonding	Adhesive or self-adhesive bonding – depending on the indication (see above). A distinction is made between dual-curing and light-curing luting composites. Dual-curing (light and chemical curing) is mainly recommended for thick and/or dark restorations, and light-curing is recommended for restorations with thin walls (particularly for veneers).
Sandblasting	–
Etching	20 sec with hydrofluoric acid gel (e.g., VITA CERAMICS ETCH).
Conditioning / silanizing	60 sec. with materials especially matched with glass ceramics.
Bonding	With bonding (adhesive) materials especially matched with glass ceramics.

7.8.3 Bonding options

- **Adhesive bonding**
  With adhesive bonding, the bond is created between the bonding material and the restoration or the bonding material and the hard tooth substance, by chemical bonding or micromechanical retention. Retentive preparation is not required, due to chemical bonding or micromechnical retention. To achieve bonding to the dentine or enamel, special adhesive systems are used on the prepared tooth, depending on the selected bonding material. Adhesive bonding increases the total strength of the seated all-ceramic restoration.
- **Self-adhesive bonding**
  Special pretreatment of the hard tooth substance is not required for self-adhesive bonding, since the bonding material features self-etching properties to the tooth, but not to the restoration. To achieve adequate adhesive forces, retentive preparation is recommended, since adhesion of the restoration is only partly achieved by micromechanical or chemical bonding.
- **Conventional bonding**
  Conventional bonding materials may be used exclusively for crowns on natural teeth. The preparation requires retentive surfaces for conventional bonding, and the anatomical shape must be reduced based on the preparation guidelines, while adhering to the specified minimum layer thicknesses. With conventional bonding, the bond is almost exclusively achieved by static friction between the bonding material and the restoration, as well as between the bonding material and the preparation. To achieve the required static friction, retentive preparation with a preparation angle of approx. 4-6°, as well as treatment of the affected ceramic surfaces using VITA Ceramics Etch for 20 seconds, are required.

7.8.4 Conditioning

Conditioning the restoration
The fit of silicate ceramics should not be checked with silicone-containing try-in pastes, since silicone oils remain on the surface, which are difficult to remove and affect adhesive bonding later on. The ceramic surface must also be free from any contamination to enable successful adhesive bonding. Alcohol may be used to clean restorations that have been seated in the mouth. Then the underside of the ceramic is etched with hydrofluoric acid for 20 seconds. It must be ensured that the hydrofluoric acid is carefully applied up to the preparation border. Then the hydrofluoric acid is rinsed off with forceful water spray. Cleaning in the ultrasonic bath (one to three minutes in 98 % alcohol) is recommended.

The use of a silane is recommended to improve bonding. When using a silane, the following procedure is required:
Before the silane is applied, the ceramic surface should be dried with alcohol (98 %). A perfectly dried surface is a precondition for reliable silanization. The silane should be allowed to react for one minute and then dispersed to obtain a very thin silane coat. When using a one-component silane, the expiration date needs to be observed; a two- component silane allows the use of a freshly mixed solution for each individual application.

A light-curing adhesive may (but does not have to) be applied to the ceramic restoration when using light curing composites. Light-curing adhesive should be used for this processing step when using dual-curing composites.

Conditioning the remaining tooth substance

The most important precondition for adhesive bonding is the fact that the surfaces must be free from any contamination.
If possible, exposed dentine should be sealed with a composite (dentine adhesive) already during the preparation of the teeth.
Dentine that is not exposed needs to be cleaned before the adhesive system is applied. This can be perfectly achieved by sandblasting with glycine powder or aluminium oxide.
The use of bicarbonate powder, however, leads to a decrease of the bonding values in the dentine and must be avoided.
Alternatively, the cavity can also be cleaned with rotating brushes and the additional use of pumice powder or fluoride-free prophylaxis paste.

Procedure for conventional adhesive technique with adhesive system

The manufacturer's instructions on conditioning must be observed for the process!

- If enamel is present, etch for 30 sec. Spray clean for 30 sec. and dry for 20 sec. Afterwards, the etched surface must be opaque white.
- Agitate dentine primer with a disposable brush or Microbrush for 30 sec., dry with air for 15 sec.
- Agitate primer coat of adhesive for 20 sec., carefully disperse for five sec. using air. Excess should be soaked up. Light curing: 60 sec.

Conditioning titanium abutments

The manufacturer's instructions on conditioning must be observed!

If sandblasting of the adhesive surfaces has been approved by the manufacturer, the following procedure is required:

- Protection of the emergence profile and the screw canal (e.g., with glycerin gel)
- Sandblast the adhesive surfaces according to the respective manufacturer's instructions
- Clean thoroughly with a steam jet or ultrasonic water bath. Avoid any contact with the adhesive surface after cleaning.
- Condition the adhesive surface for 60 sec. Then dry remaining excess with air.

Conditioning zirconia abutments

The manufacturer's instructions on conditioning must be observed!

- Clean the abutment surface with alcohol (intraoral) or acetone (extraoral).
- Then apply ceramic primer according to the manufacturer's instructions.
- Then apply bonding material according to the manufacturer's instructions.

8. Technical data/information

8.1 Technical / physical data

Property	Unit	Value
CTE	$10^{-6} \cdot K^{-1}$	approx. 9.4
Biaxial strength (after pressing)	MPa	approx. 400
Biaxial strength (after Power Glaze)	MPa	approx. 550
Solubility	$\mu g/cm^2$	approx. 30

8.2 Chemical composition

Components	Wt%
ZrO_2 (zirconia)	8 – 14
SiO_2 (silicon dioxide)	58 – 66
Li_2O (lithium oxide)	12 – 16
Pigments	< 10
Various	> 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 Indication overview

Note:

- Intended purpose: VITA AMBRIA products are ceramic materials for dental treatments.
- Patient target group: No restrictions
- Intended user: Dental professionals only - dentist and dental technician (Rx only).

VITA AMBRIA is approved for:
○ Occlusal veneers (table tops)*, veneers* ○ Inlays*, onlays*, partial crowns* ○ Crowns in the anterior and posterior area ○ Three-unit bridges in the anterior tooth region up to the second premolar as a terminal pillar ○ Single tooth restorations as implant suprastructures for anterior and posterior teeth ○ Three-unit bridges as implant suprastructures up to the second premolar on implant abutments ○ Single tooth mesostructures in the anterior and posterior areas ○ Abutment crowns in the anterior and posterior areas

*) For adhesive bonding only.

8.4 Contraindication

Contraindications:
○ In cases of inadequate oral hygiene ○ In cases of inadequate preparation results (such as tangential preparation, for example) ○ Insufficient hard tooth substance ○ In cases of insufficient space available ○ Hyperfunction: for patients diagnosed with excessive occlusal function, in particular teeth grinders and clenchers ○ Restoring devitalized teeth of patients with hyperfunctions ○ Endodontic crowns ○ Posterior bridges in the area of molars ○ In cases of bridges with more than three units ○ Inlay-retained bridges / Maryland bridges ○ Cantilever bridges ○ In patients with allergies or sensitivities to the ingredients ○ Conventional or self-adhesive incorporation of inlays, onlays, veneers, partial crowns and occlusal veneers (table top) ○ Temporary seating of restorations

Please note:

- Successful processing of VITA AMBRIA is not guaranteed in the following cases:
  - ○ Pressing of several VITA AMBRIA pellets in one investment ring.
  - ○ Veneering with veneering ceramics that are not suitable for the veneering of VITA AMBRIA or that have a firing temperature > 770 °C.
  - ○ Exceeding the stipulated minimum wall and connector thicknesses.
  - ○ Overpressing: VITA AMBRIA is not suitable for the overpressing of zirconia and metal substructures.

8.5 General notes on handling

Note:

- Please check the packaging and the material immediately upon receipt to ensure that they are intact and in good condition.
- The packaging must be sealed.
- The manufacturer's name, VITA Zahnfabrik, and the CE marking must be present on the packaging.

Please note:

- Please read through the Working Instructions carefully before you take the press pellets out of the packaging.
  They contain important information on processing that is useful for your safety and the safety of your patients.
- If not all of the instructions in this brochure are followed, the VITA AMBRIA press pellets must not be used to make dentures.

Note:

- Risks
  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 htpp://www.vita-zahnfabrik.com/product_safety

Note:

- **Intended use**
  Store the VITA AMBRIA pellets in the original packaging and in a dry place.
  The products labelled with a pictogram for hazardous substances are to be disposed of as hazardous waste.
  Recyclable waste (such as paper and plastics) must be disposed of using appropriate recycling systems.
  Contaminated product residues must be pretreated if necessary and disposed of separately in accordance with regional regulations. The materials must not be contaminated with foreign substances (e.g., during the press process).

8.6 Symbol explanations

Medical device	MD	Manufacturer	
For dental users only	Rx only	Date of manufacture	
Observe instructions for use		Expiration date	
Do not reuse		Product number	REF
Lot number (batch)	LOT		

8.7 Safety at work / health protection

Safety at work and health protection	• While work is in progress, wear suitable safety goggles/face protection. • Only perform work under an extraction unit. • Wear light face mask when working.	

8.8 Safety data sheets

VITA AMBRIA INVEST P	**Important** • Contains quartz and cristobalite. • Causes damage to the lungs through prolonged or repeated exposure. Route of exposure: inhalation. • Do not inhale dust. • If you feel unwell, contact a doctor. Dispose of contents in accordance with local regulations.	
VITA AKZENT PLUS: – **GLAZE LT** Spray – **FLUO GLAZE LT** Spray	**Danger** • Extremely flammable aerosol Spray-on ceramic glaze material. • For dental applications only. Not for intraoral use. Shake well before use. Pressurized container. May burst if heated. 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 hot objects. Keep away from ignition sources – No smoking. • Keep away from heat, sparks, open flame, hot surfaces	
VITA Firing Paste	**Health hazard / caution** • May cause cancer by inhalation. Causes skin irritation. For commercial use only. • Wear protective gloves/protective clothing/eye and face protection. Use personal protective equipment as required. Special treatment: remove contaminated clothing and wash before wearing again. Keep locked up. • Dispose of contents/container in accordance with local/regional/national/international regulations. Hazardous dust is formed when crushing in the dry condition (after firing).	

Note:

- You can find detailed information on the corresponding data safety sheet.
- The corresponding safety data sheets can be obtained at www.vita-zahnfabrik.com/downloadcenter or by fax at (+49) 7761 562-233.

8.9 Variants, geometries and shades

VITA AMBRIA types/shades

VITA AMBRIA Press pellets

for delicate veneers, esthetic full/partial crowns and three-part bridges up to the second premolars

Degree of translucency	size	Chroma
• TRANSLUCENT T • High Translucent HT • Super Translucent ST* • Medium Opacity MO*	**Press pellets** • S • L	• mono-chromatic

VITA classical A1–D4/Bleached Shades

Stains	A1	A2	A3	A3.5	B1	B2	B3	C1	C2	C3	D2	D3
Translucent	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
High Translucent	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

VITA SYSTEM 3D-MASTER / Bleached Shades

Stains	0M1	0M3	1M1	1M2	2M1	2M2	3M1	3M2	4M1	4M2
Translucent	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
High Translucent	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

VITA ENAMEL

Stains	ENL	ENM	ENI
Super Translucent	✓	✓	✓

MO

Stains	MO-0	MO-1	MO-2
Medium Opacity	✓	✓	✓

* Only available as an S pellet

8.10 VITA System Solutions

Shade determination

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

Modeling

- For modeling, use a residue-free combustible modeling or milling wax.

Investing

- For investing, use the coordinated investment material system **VITA AMBRIA** INVEST P + F and the **VITA AMBRIA** MUFFEL SYSTEM.

Pressing

- For pressing, use **VITA AMBRIA** Pellets, the combipress unit **VITA VACUMAT 6000 MP** and the disposable press plunger **VITA AMBRIA** PLUNGER.

Veneering*

- Veneer your reconstructions with the veneering ceramic **VITA LUMEX** AC, which is ideally matched to VITA AMBRIA.

Characterization Glazing

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

Polishing

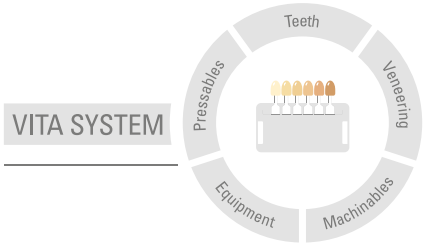
- Polish restorations with the recommended **VITA CERAMICS** Polishing Set.

Bonding

- Bond restorations fully or self-adhesively with **VITA ADIVA** LUTING SOLUTIONS.

*) Optional: Veneering with VITA LUMEX AC is an optional process step and is not necessary for the monolithic restoration concept.

You can find more information on VITA AMBRIA at:
www.vita-zahnfabrik.com/ambria



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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 CE 0124:

VITA AMBRIA®, **VITA LUMEX®**AC, **VITA AKZENT®**Plus

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Rx Only MD

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