VITA VIONIC® FRAME

Instructions for use for digital denture fabrication with Ceramill® FDS

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

Date of issue 2022-09

VITA – perfect match.

VITA

The dental framework solution with an ideally coordinated material system

Dear customers,

Congratulations and thank you for choosing the dental framework solution with an ideally coordinated material system!

VITA VIONIC SOLUTIONS is a comprehensive material system for each process step of CAD/CAM denture fabrication for the time-saving, digital manufacture of dentures that are tailored to the individual patient.

To process all system components safely and simply, please read these instructions for use all the way through before the first use.
For detailed information on the CAD/CAM fabrication of full/partial dentures using the Ceramill System, please see the CeramillI FDS user manual from Amann Girrbach.

We hope you enjoy VITA VIONIC SOLUTIONS and achieve great results!

Your VITA Product Management Team

Explanation of symbols:

System/technology info **Please note** **Note**

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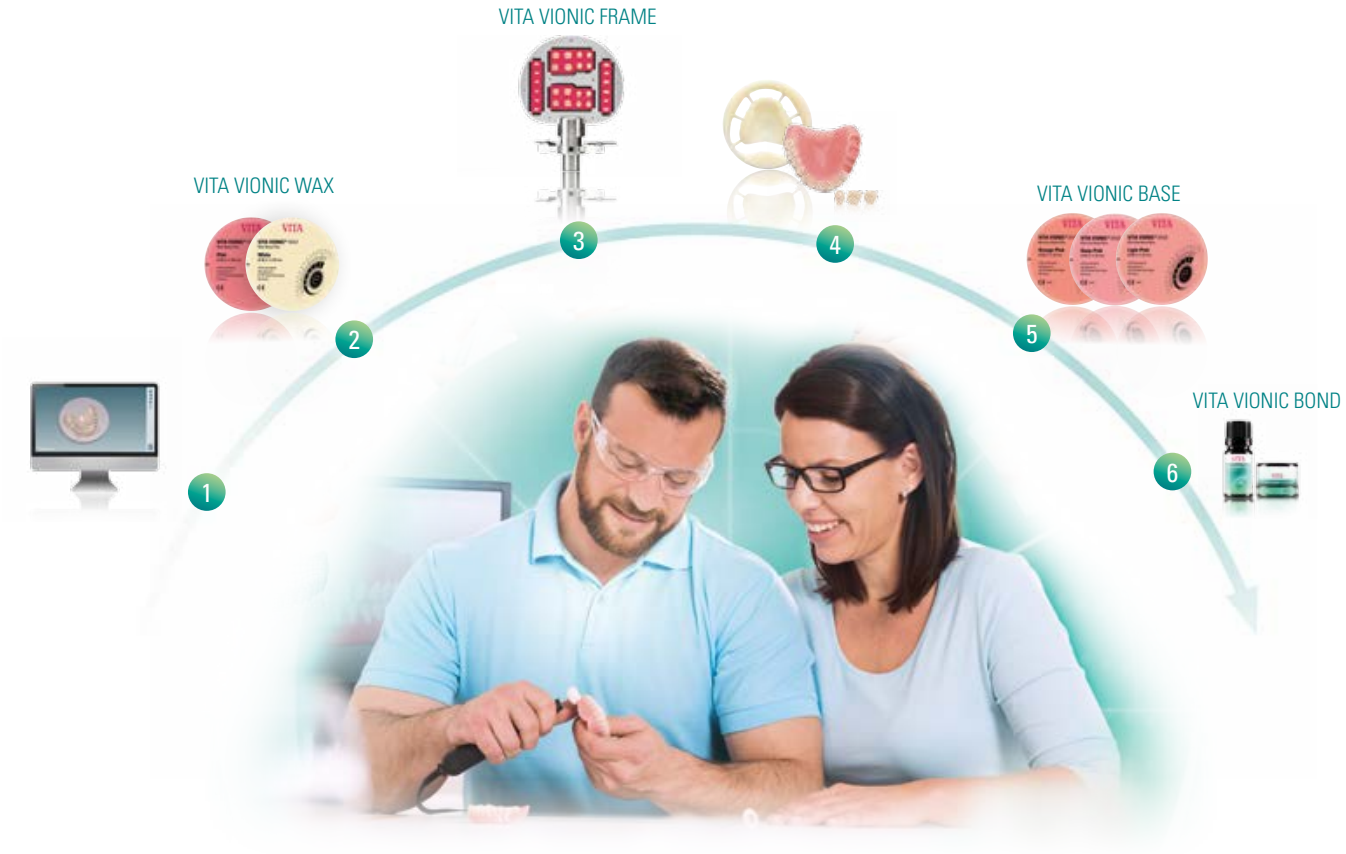
1. The Material System



Note:

- What? VITA VIONIC is a coordinated material system for process-reliable CAD/CAM denture manufacturing at the touch of a button.
- With what? The VITA VIONIC material system includes:
  - VITA VIONIC WAX: wax discs for the fabrication of full-sized wax try-ins and wax setups
  - VITA VIONIC BASE: PMMA discs for the manufacturing of final denture bases
  - VITA VIONIC FRAME: Tooth frame solutions for CAM tooth modification with the Ceramill system
  - VITA VIONIC BOND: Bonding solution for fixing denture teeth in the base

2. The System Components

2.1 VITA VIONIC® WAX

VITA VIONIC WAX disc, white

Disc in the holder system

Full-sized, milled wax try-in

VITA VIONIC WAX disc, pink

Disc in the holder system

Milled wax base for try-in

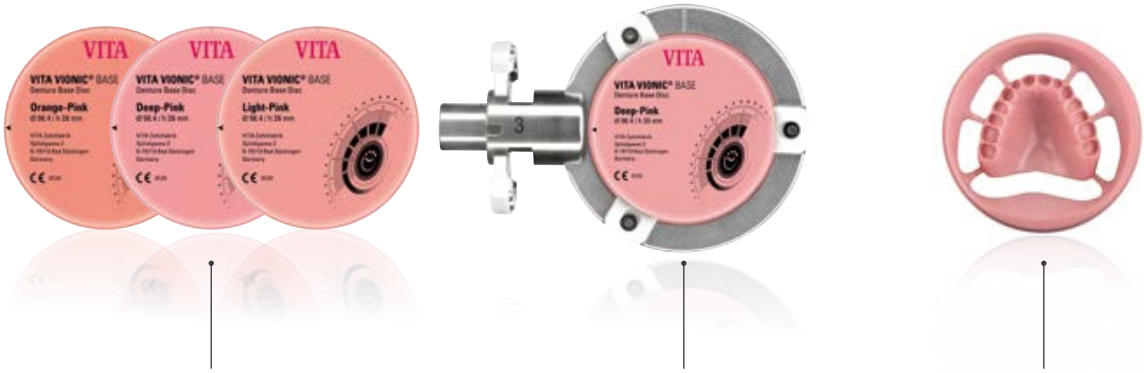
Note:

- What? VITA VIONIC WAX is a millable blank made of a high-quality, millable and dimensionally stable synthetic wax, with a high melting temperature.
- What for?
  - VITA VIONIC WAX white is used for the economic fabrication of full-sized try-ins. They are milled completely from wax (base, incl. teeth) and are used to test the midline, occlusion plane and phonetics.
  - VITA VIONIC WAX pink is used for the fabrication of denture bases for try-in. For this purpose, denture teeth are fixed in the milled cavities. All parameters can be checked, and if necessary, corrections can be implemented.
- With what? VITA VIONIC WAX is available in the colors pink and white.

Please note:

- Not suitable for the direct fabrication of final prostheses.
- Wet machining is recommended for the milling process.
- Must be processed at room temperature.
- Must be protected from direct sunlight.

2.2 VITA VIONIC® BASE



VITA VIONIC Discs

Disc in the holder system

Milled denture base

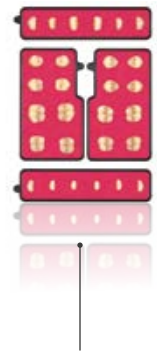
Note:

- What? VITA VIONIC BASE is a millable blank made of a high-quality, industrially polymerized acrylic polymer that features shade stability (PMMA) for the CAD/CAM fabrication of denture bases for full/partial dentures.
- What for? For the CAD/CAM fabrication of final denture bases in conjunction with VITA denture teeth (VITA VIONIC FRAME).
- With what? VITA VIONIC BASE is available in three colors (Deep Pink, Light Pink, Orange Pink) and in two different heights (26 and 30 mm).

Please note:

- Must not be used in patients who are allergic to PMMA.
- Suitable only for the manufacture of full/partial dentures with VITA denture teeth (VITA VIONIC FRAME).
- Can be lined and repaired with a commercially available cold polymer:
  Manufacturing recommendation: Cold polymer FuturaGen (Schütz Dental GmbH) in the colors orange, transparent pink and opaque pink.

2.3 VITA VIONIC® FRAME



VITA VIONIC FRAME

Tooth frames in the holder system

CAM-processed denture teeth

Note:

- What? VITA VIONIC FRAME is a tooth frame solution for VITA denture teeth, which are embedded in a polymer frame using wax.
- What for? For the CAM modification of VITA denture teeth (VITAPAN EXCELL DD FRAME/ VITAPAN LINGOFORM DD FRAME) with Ceramill FDS (Amann Girrbach) for the digital manufacture of full/partial dentures.
- With what? VITAPAN EXCELL DD FRAME (anterior): 9 x maxilla and 4 x mandible anterior tooth moulds.
- VITAPAN LINGOFORM DD FRAME (posterior): 4 x maxilla and 4 x mandible posterior tooth moulds.
- Available in: 6 x VITA classical A1–D4 shades (A1, A2, A3, A3.5, B3, D3).

Please note:

- Store and process at room temperature.
- Protect from direct sunlight.

2.4 VITA VIONIC® BOND

VITA VIONIC BOND bonding system

Bonding of the denture teeth in the base.

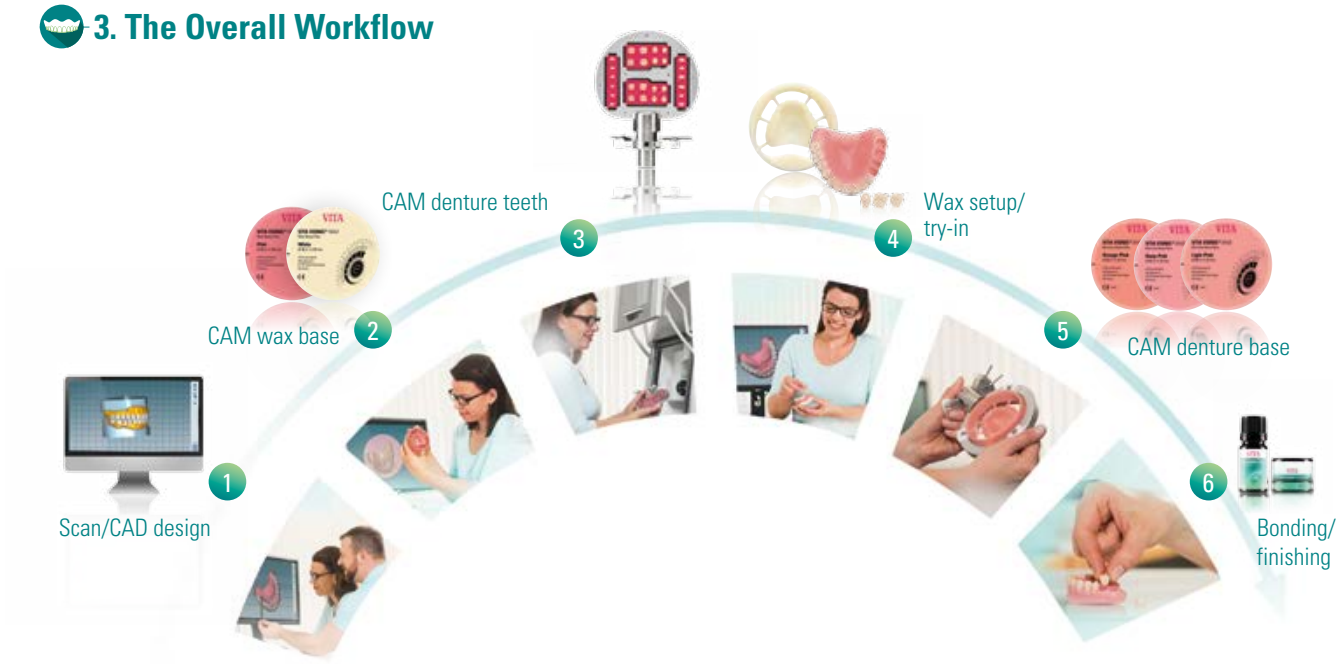
Note:

- What? VITA VIONIC BOND is a self-curing, two-component bonding system (BOND I + II) based on methyl methacrylate (MMA).
- What for? It is used for the final bonding of VITA denture teeth in the milled cavities of CAD/CAM fabricated denture bases made of VITA VIONIC BASE.
- With what? The VITA VIONIC BOND KIT consists of VITA VIONIC BOND I (glass vial), VITA VIONIC BOND II (glass bottle) and an applicator (microbrush).

Please note:

- Store in the refrigerator between 5 and 10°C where it is dark and dry; observe the expiration date and protect from sunlight.
- VITA VIONIC BOND contains methyl methacrylate (MMA). MMA is a hazardous substance that is highly flammable and has a sensitizing effect. Avoid contact with skin and inhalation of the fumes.
- You can find detailed instructions in the Safety Data Sheets at www.vita-zahnfabrik.com

3. The Overall Workflow



Note:

1. Scan/CAD design with Ceramill Map and Ceramill Mind
2. CAM processing with VITA VIONIC WAX
3. CAM modification with VITA VIONIC FRAME
4. Wax setup / full-sized try-in with VITA VIONIC WAX
   Note: You can choose from two different processes for Step four!
5. Fabrication of the denture base with VITA VIONIC BASE
6. Bonding of the denture teeth with VITA VIONIC BOND

Please note:

System requirements for VITA VIONIC SOLUTIONS:

- CAD software: Ceramill D-Flow Software Module
- CAM hardware: Ceramill Motion 2 (5X) incl. Coolstream
- Scanner: Ceramill Map 300/400

4. The Scan Process

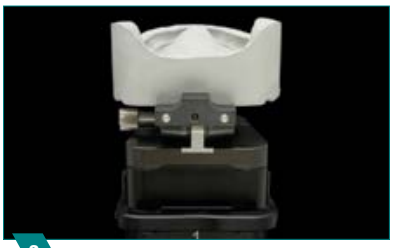
1 Prepare the maxilla model.

2 Prepare the mandible model.

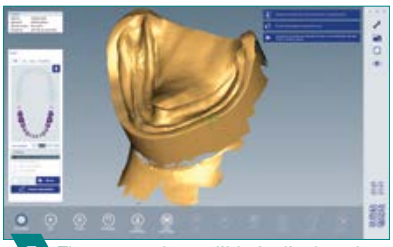
3 Create the patient case.

4 Scan the maxilla model.

5 The scanned maxilla is displayed.



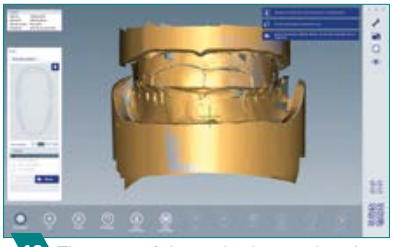
6 Scan the mandible model.



7 The scanned mandible is displayed.

8 Scan the maxilla/mandible model with esthetic template.

9 The vestibular scan is displayed.



10 The scan of the esthetic template is displayed.

Note:

- Prepare the models so that no larger shadows are visible in the area of the vestibular fold.
- Spray the esthetic template with scanspray (e.g., VITA Scan Spray) to prevent reflections and record all necessary information.

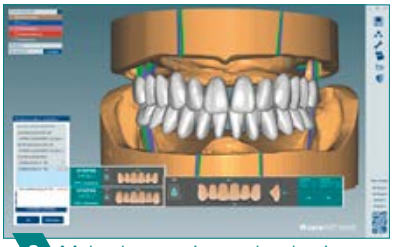
Please note:

- For detailed information on the scan process, please observe the Ceramill FDS instructions for use.

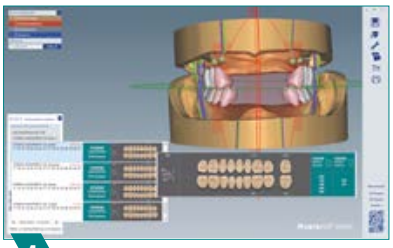
5. The CAD Process

1 Determine the occlusion plane.

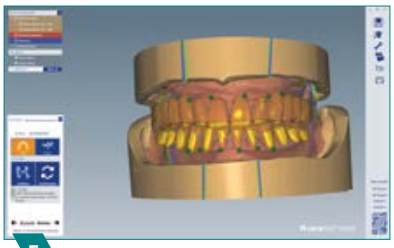
2 Conduct the model analysis according to TiF (maxilla and mandible).



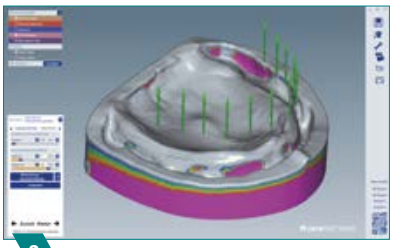
3 Make the anterior tooth selection (VITAPAN EXCELL anterior).



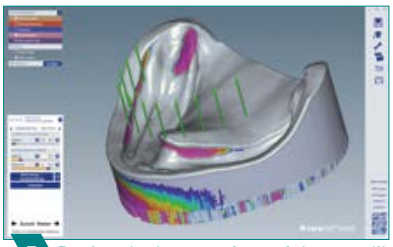
4 Make the posterior tooth selection (VITAPAN LINGOFORM posterior).



5 Individualize the tooth setup, if necessary.



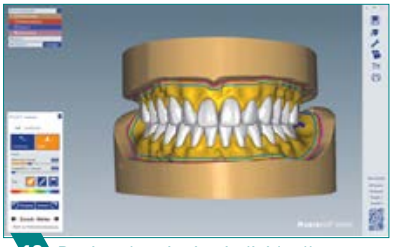
6 Design the base surface of the maxilla prosthesis (blocking the model out).



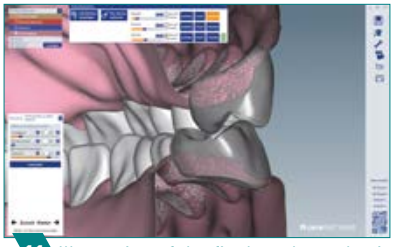
7 Design the base surface of the mandible prosthesis (blocking the model out).

8 Calculate the maxilla denture base.

9 Calculate the mandible denture base.



10 Design the gingiva individually with the free-form function.



11 Illustration of the final total prosthesis in the step view.

12 Nesting of the denture bases (maxilla and mandible).

Note:

- Select the suitable anterior and posterior teeth and the desired setup concept according to the TiF model analysis.
- Design the gingiva individually, as needed, according to your desires with the free-form function of the wizard.

Please note:

- For detailed information on the CAD process, please observe the Ceramill FDS instructions for use.

6. The (CAM) Processing

6.1 Fabrication of full-sized wax try-ins (Process 1)

1 Clamp the white wax disc in the holder system.

2 Mill the wax disc for the full-sized wax try-in (maxilla).

3 Mill the wax disc for the full-sized wax try-in (mandible).

4 Separate out the try-in with a hot wax knife.

5 The full-sized try-ins on the master models.

6 Conduct the intraoral try-in.

Note:

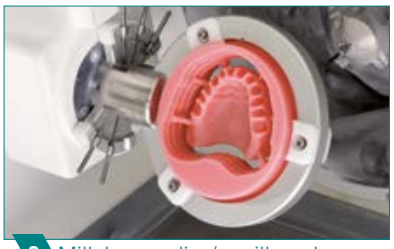
- This process is used to manufacture full-sized wax try-ins (note: there are two processes for the fabrication of try-ins; see 2.1 VITA VIONIC WAX).
- For the full-sized try-in, blend in or smooth out excess (protrusions) flush with the denture base.
- Central parameters, such as the midline, course of the occlusion plane and phonetics, must be examined during the try-in.
- If all parameters are in order, you can mill the final denture base and conduct the CAM modification of the denture teeth.
- Any necessary adjustments after the try-in are performed digitally with the CAD software. The final prosthesis is then fabricated using the CAM process (based on the modified and finalized setup).

Please note:

- Wet machining is recommended for the milling process.
- Based on CAM technology, a final prosthesis can only be fabricated after checking the wax try-in.
- In the case of comprehensive adjustments after the wax try-in, conduct another try-in as a control, if necessary.
- The full-sized try-ins must be disinfected before and after the try-in.

6.2 Fabrication of the wax try-in with denture teeth (process 2)

1 Clamp the pink wax disc in the holder system.



2 Mill the wax disc (maxilla and mandible) for the try-in.

3 Separate out the try-in with a hot wax knife.

4 Modify the denture teeth using CAM (see 6.3).

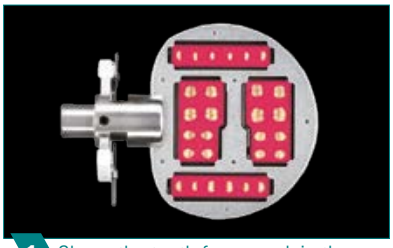
5 Fix the denture teeth in the cavities with wax.

6 The finished wax discs with denture teeth secured with wax.

Note:

- Wet machining is recommended for the milling process.
- This process is used to manufacture denture bases for wax try-ins. The denture teeth are fixed in the milled cavities (note: there are two processes for the fabrication of try-ins, see 2.1 VITA VIONIC WAX).
- Blend in and smooth out the excess (protrusions) flush with the denture base and fix the denture teeth for the try-in in the cavities.
- Modify the denture teeth with the aid of the CAM process (see 6.3).
- Central parameters, such as the midline, course of the occlusion plane and phonetics, must be examined during the try-in.
- If all parameters are in order, you can mill the final denture base or perform the conventional fabrication.
- Any necessary adjustments after the try-in can be conducted digitally (CAD software) or manually (by hand).
- In the case of manual adjustment, the fabrication is done conventionally using tamping or pressing technology. VITA VIONIC WAX, pink, can be completely extracted.
- The wax dentures must be disinfected before and after the try-in.

6.3 Modification of the denture teeth using CAM



1 Clamp the tooth framework in the holder system.

2 The denture teeth after CAM modification.

3 Sandblast the processed surfaces of the anterior teeth.

4 Sandblast the processed surfaces of the posterior teeth.

5 Separate the denture teeth from the dental framework.

6 Clean the tooth blanks and remove any residual wax.

Note:

- The basal and circular CAM modification of each individual denture tooth guarantees a high, cut-back-free fit between tooth and base.
- Carefully sandblast the CAM-modified glued surfaces with Al_2O_3 (50 µm, 2 – 3 bar) and observe the operating instructions for the blasting unit used.
- You can place the VITA VIONIC FRAME in the freezer for a short time or spray it with a cold spray to make it easier to remove the teeth.
- In order to completely remove any wax residue, you must clean the denture teeth with steam and blow them dry with separated pressurized air (water separator) prior to bonding.

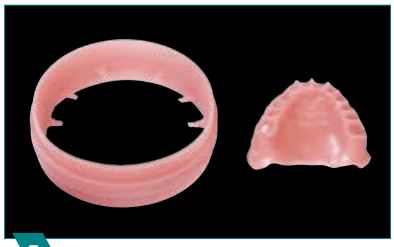
6.4 Fabrication of the final denture bases

1 Clamp the PMMA disc in the holder system.

2 Mill the final maxilla denture base.

3 Mill the final mandible denture base.

4 Separate the denture bases from the disc.



5 Final milled denture bases (here, maxilla).

6 Sandblast the milled cavities of the denture bases.

Note:

- Separate the denture bases from the discs with a mill suitable for PMMA and grind the excess (protrusions) flush with the base.
- Carefully sandblast the milled cavities in the denture bases with Al_2O_3 (50 µm, 2 – 3 bar) and remove the millings with separated pressurized air (water separator). Observe the operating instructions for the blasting unit used.

Please note:

- Please use appropriate safety glasses and wear face protection/respiratory protection.

7. Bonding

7.1 Bonding of the denture teeth in the base

1 Check the fit of the teeth for any slight proximal interferences.

2 Mix the VITA VIONIC BOND I and II with each other.

3 Mix the two components for 30 seconds.

4 Apply the adhesive system to the adhesive surfaces of the teeth.

5 Moisten the milled cavities generously with the adhesive system.

6 Position the denture teeth in the cavities.

7 Attach the denture teeth using light pressure.

8 Complete the dental row with denture teeth.

9 Final bonded denture teeth (here, maxilla).

Note:

- Position all teeth one after the other in the cavities of the denture base to remove any occurring proximal interference.
- One portion of adhesive is sufficient for one set of full dentures (one upper and one lower denture).
- Mix the two components using the applicator for 30 seconds to prevent air bubbles.
- After that, immediately apply and process the bonding systems at room temperature (>20 C).
- Adhesive with a low viscosity may evaporate if it is handled for too long. To ensure that the adhesive surface is completely covered, generous application is recommended.
- To establish a secure bond, the dentures must be set aside for at least 30 minutes without any load after the teeth have been inserted.
- After 20 minutes in the water bath of a pressure pot (55 C, 2 bar), curing is complete. Alternatively, curing can be achieved by storing the denture for 12 hours at room temperature without any load.
- Any excess can be removed by careful blast polishing (1-2 bar) after bonding the teeth.

Please note:

- The mixing ratio of the two components is ideally matched to one another and may not be changed.
- If the low-viscosity consistency of the bonding system changes and threads begin to appear, for example, VITA VIONIC BOND can no longer be used.
- Please use appropriate safety glasses and wear face protection/respiratory protection.

8. Finalization

8.1 Finalization of the final denture bases

1 Sandblast the interdental spaces.

2 Clean the sandblasted surfaces.

3 Use VITA VM LC MODELLING LIQUID for moistening.

4 Moisten the sandblasted areas with VITA VM LC MODELLING LIQUID.

5 Use VITA VM LC flow materials for closing interdental spaces.

6 Close the interdental spaces with VITA VM LC flow.

7 Finalize and polish the denture surfaces.

8 Final digitally-fabricated full dentures.

9 Check occlusion in the articulator.

Note:

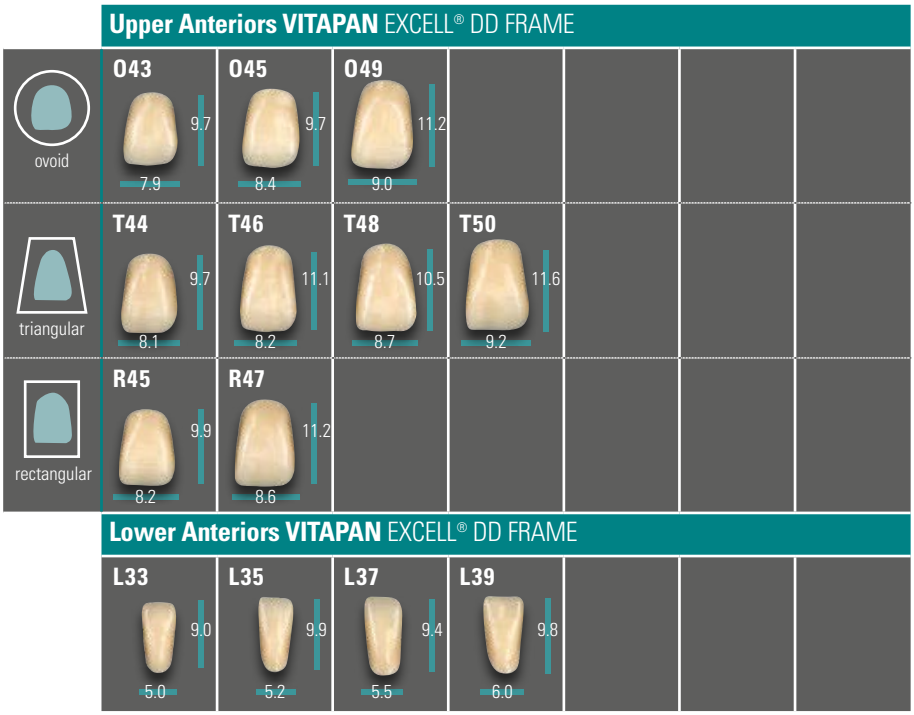
- Sandblast the interdental spaces with Al_2O_3 (50 µm, 2 – 3 bar) to ensure a good bonding of VITA VM LC flow to the base material and the denture teeth.
- Clean the sandblasted surfaces with compressed air (water separator).
- Moisten the sandblasted areas with VITA VM LC MODELLING LIQUID for the bond between the denture teeth and VITA VM LC flow materials.
- Then use VITA VM LC flow (five gingiva shades and/or Window) to close the interdental spaces.
- Please conduct the surface processing and polishing according to the analogous full denture.
- Check the occlusion in the articulator. After adjusting the muscle balance, reocclusion by the practitioner is recommended after a wearing time of about two days.

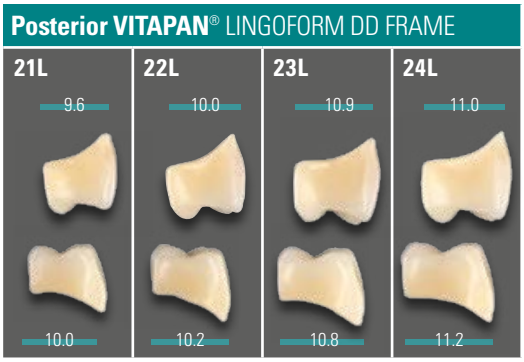
Please note:

- To use the light-curing microparticle composite VITA VM LC flow, please observe the instructions for use of this product.
- The curing parameters may vary depending on the device used. Please observe the manufacturer's recommendations (detailed instructions can be found at www.vita-zahnfabrik.com).
- Please use appropriate safety glasses and wear face protection/respiratory protection.

9. Moulds, technical data, and information

9.1 Overview of available tooth moulds





VITAPAN EXCELL Anterior	**UJ / No.** mm	**O43** 43.1	**O45** 45.1	**O49** 49.1	**T44** 44.1	**T46** 46.2	**T48** 48.1	**T50** 50.0	**R45** 45.4	**R47** 47.0
	LJ / No. mm	**L33** 33.2	**L35** 35.3	**L39** 39.0	**L33** 33.2	**L35** 35.3	**L37** 37.3	**L39** 39.0	**L35** 35.3	**L37** 37.3
VITAPAN LINGOFORM Posterior	**UJ / No.** mm	**21L** 30.1	**22L** 31.6	**23L** 34.2	**21L** 30.1	**22L** 31.6	**22L** 31.6	**24L** 35.8	**22L** 31.6	**22L** 31.6
	LJ / No. mm	**21L** 30.7	**22L** 32.1	**23L** 34.8	**21L** 30.7	**22L** 32.1	**22L** 32.1	**24L** 36.4	**22L** 32.1	**22L** 32.1

9.2. Intended purpose

VITAPAN EXCELL DD FRAME and VITAPAN LINGOFORM DD FRAME are resin denture teeth for dental treatments.

9.3. Patient target group

No restrictions

9.4. Intended user

Dental professionals only: dentists and dental technicians

9.5. Indications

The VITAPAN EXCELL DD FRAME and VITAPAN LINGOFORM DD FRAME denture tooth blanks are machined for the following products using the appropriate Amann Girrbach mills:

- Full dentures
- Partial dentures

9.6. Contraindications

VITAPAN EXCELL DD FRAME and VITAPAN LINGOFORM DD FRAME are not suitable for CNC machining on milling machines that are not part of the Amann Girrbach Full Denture System (FDS).

9.7. Storage/disposal

The prosthetic teeth should be stored away from light. They can be disposed of in domestic waste.

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.

9.8. Chemical composition

Chemical composition	**Wt%**
Polymethyl methacrylate CAS no. 9011-14-7	84 – 86
Silicon dioxide CAS no. 14808-60-7	14 – 15
Pigments	< 1

9.9. Physical properties

Physical properties	Value
Appearance according to ISO 22112	Complies with standard
Tooth shape according to ISO 22112	Complies with standard
Shade and blending of shades according to ISO 22112	Complies with standard
Free of porosity and other defects according to ISO 22112	Complies with standard
Surface treatment according to ISO 22112	Complies with standard
Adhesive strength to denture base according to ISO 22112	Complies with standard
Resistance to fading, deformation, and cracking according to ISO 22112	Complies with standard
Shade stability according to ISO 22112	Complies with standard
Dimensional stability according to ISO 22112	Complies with standard

9.10. Product reliability

Information on reporting serious incidents in connection with medical devices, general risks associated with dental treatments, residual risks and (if applicable) short clinical safety and performance reports (SSCPs) can be found at https://www.vitazahnfabrik.com/product_safety.

The safety data sheets can be downloaded at www.vita-zahnfabrik.com or requested by fax at (+49) 7761-562-233.

9.11. Information on and explanations of symbols

Medical device	MD	Manufacturer	
For professionals only	Rx only	Date of manufacture	
Observe instructions for use		Expiration date	
Protect from sunlight		Product number	REF
		Batch description	LOT

VITA VIONIC BOND I		
	Danger	H225 Highly flammable liquid and vapor.
	Important	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H335 May cause respiratory irritation.
VITA VIONIC BOND II		
	Danger	H225 Highly flammable liquid and vapor.
	Important	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H335 May cause respiratory irritation.
VITA VM LC MODELLING LIQUID		
	Important	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation.
VITA VM LC flow GINGIVA		
	Important	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects.
VITA VM LC flow WINDOW		
	Important	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects.

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

WE ARE HAPPY TO HELP

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

Hotline Sales Support

Ms. Carmen Holsten and her team (Internal Sales Department) will be glad to assist you with orders or questions about the 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

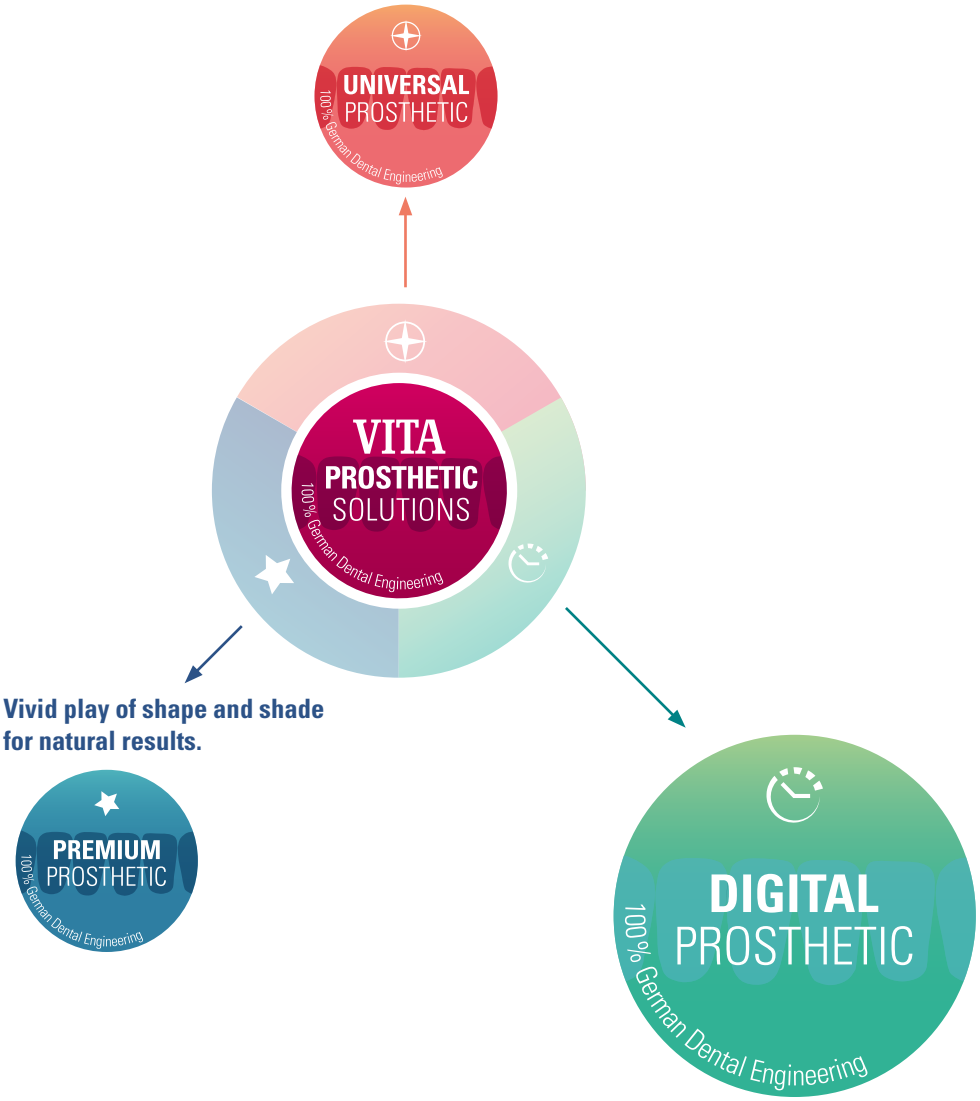
Additional product information is available at **www.vita-zahnfabrik.com/prosthetics**

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

VITA PROSTHETIC SOLUTIONS –

For ideal dental prosthetics: natural, reliable, rich in variation.

Ideal variety of shade and moulds for all cases.

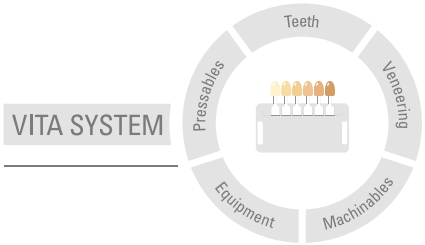


Vivid play of shape and shade for natural results.

Efficient CAD/CAM dentures for greater productivity.

Increasing productivity with digital technology
The VITA DIGITAL PROSTHETICS combines innovation, efficiency and precision with precisely matched material and CAD/CAM system solutions for full dentures.

More information about VITA VIONIC FRAME
is available at: www.vita-zahnfabrik.com/prosthetics



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: 2022-09

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

VITA Zahnfabrik has been certified and the following products bear the CE mark CE 0124:

VITAPAN EXCELL® DD FRAME, **VITAPAN®** LINGOFORM DD FRAME, **VITA VIONIC®** BOND, VITA**VM®LC *flow***, VITA**VM®LC** MODELLING LIQUID

The company GDF Gesellschaft für dentale Forschung und Innovationen GmbH is certified according to the Medical Device Directive, and the following product bears the mark CE 0297:

VITA VIONIC® BASE

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

VITA VIONIC® WAX

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Rx only MD

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Zweigniederlassung Basel c/o Perrig AG, Max Kämpf-Platz 1, 4058 Basel

VITA

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