VITA vPad easy

Operating manual

VITA shade taking | VITA shade communication | VITA shade reproduction | VITA shade control

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VITA shade, VITA made.

VITA

Table of contents

1 Introduction

1.1 General information

Dear Customer,
Thank you for deciding to purchase a VITA vPad easy to operate and control your VITA VACUMAT 6000 M.

Please read this user manual carefully before using!
The user manual is an important aid for operating the device successfully and safely.

The user manual contains important information on how to use the device safely, appropriately and efficiently. Following the instructions in this manual will help prevent risks, reduce repair costs and downtime, and increase the reliability and service life of the device.

All of the illustrations and drawings in this user manual are intended for general explanatory purposes only, and are not intended to be authoritative with regards to the detailed construction of the device.

This user manual must be kept with the device at all times. It must be read and followed by all persons responsible for working with/on the device, for example in relation to:

- Operation
- Troubleshooting work routines
- Cleaning
- Servicing (maintenance, inspection, repairs).

1.2 Copyright

Important copyright information:
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Any right or license to use any software data, information or other intellectual property rights of Vita Zahnfabrik or any obligation to provide support must be conveyed by separate written agreement with Vita Zahnfabrik.

2 Scope of delivery

2.1 Device supplied in special box including:

- 1 VITA vPad easy
- 1 user manual

3 Technical Information

VITA vPad easy control unit with a 200-program storage capacity

3.1 Dimensions/weight

VITA vPad easy

- Width: 235 mm
- Depth: 156 mm
- Height: 150 mm
- Weight: 0.6 kg
- Housing: Plastic

3.2 Electrical data

48 V of DC power is supplied to the VITA VACUMAT 6000 M through the connection cable.

Mains connection: 230 Volts, 50/60 Hz

3.3 Ambient conditions

- Ambient temperature: 2°C to 40°C
- Relative humidity max. 80% at 31°C

4 Intended use

Basis for the device design
The device is constructed according to state-of-the-art design and recognized safety regulations. However, inappropriate use may result in the risk of injury or death, as well as damage to the device and other valuable property.

Unauthorized modes of operation
Operation of the device with power sources, products, etc., which are subject to hazardous material regulations or that may represent a negative impact on the health of the operating personnel, and the use of user-modified equipment, are not permitted.

Authorized modes of operation
Operation of the device is only permitted if this user manual has been read and understood in full and the procedures described in it have been observed. Any other or additional use, e.g., the processing of products other than those for which it is intended, as well as the handling of hazardous materials or substances that may be harmful to one's health, is considered to be contrary to the intended use as specified in this manual.
The manufacturer/supplier is not liable for any damage resulting from such unauthorized use. The risk of such use is borne exclusively by the user.

5 Operation and cleaning of the control unit

Do not operate the control unit with **sharp or hot** objects;
this will result in damage to the touch screen.

Damage to the touch screen attributable to improper handling during operation or cleaning is excluded from the warranty coverage.

5.1 Warranty and liability

The warranty and liability are established in accordance with the terms and conditions set out in the contract.

ⓘ In the event of modifications to the software that are made without the knowledge and approval of VITA Zahnfabrik H. Rauter GmbH & Co. KG, all liability and warranty claims are invalidated.

5.2 Spare parts
All spare parts must meet the technical requirements set out by the manufacturer. This is always ensured by the use of original VITA spare parts.

5.3 Safety signs
Before using the device for the first time, please observe the safety information for the VITA VACUMAT 6000 M (see safety information in the VITA VACUMAT 6000 M user manual).

6 Safety functions

When the furnace is used with a VITA vPad easy control unit, it has the following safety and monitoring features:

- Temperature sensor monitoring
- Temperature monitoring
- Vacuum monitoring
- Power failure protection
- Lift monitoring

6.1 Power supply failure

The device is equipped with power supply failure protection. This component prevents program interruption and subsequent misfiring in the event of a brief power failure. Power supply failure protection takes effect as soon as the power supply fails when a firing program is running.

Power failure time less than approx. 15 sec.

The program continues to run uninterrupted. However, the display will not be operational during this period. The display shows the running program again after the power supply program interruption has started.

Power failure time longer than approx. 15 sec.

The program is interrupted, and the display is no longer operational. After the power supply is reconnected, the display shows the power failure for informational purposes.

⚠ Attention! After the power supply has started, the time required to switch the control unit back on again is approx. 20 sec.

7 Automatic temperature calibration

Automatic temperature calibration is performed by the processor after each start of a firing program. The temperature calibration examines and corrects any deviations in temperature measurement and temperature control that have occurred in the electronic components. This calibration is performed at approx. 5 msec intervals, without affecting the general timing sequence. Therefore, even when the device operates for long periods of time, constant temperature sensing of +/- 1°C is achieved.

7.1 Service

For more information about the device, please visit our website:
http://www.vita-zahnfabrik.com
Software updates can be downloaded under **Services / Equipment Servicing**. Moreover there is also a registration possibility for the VITA Update Messenger Devices to be automatically informed by email about new information on the device.

Technical questions and questions about repair and warranty services can be sent to the following email address:
instruments-service@vita-zahnfabrik.com
Phone: +49 (0) 7761 / 562-105, -106, -101

8 First-time use

Please consult the setup and first-time use instructions in the VITA VACUMAT 6000 M user manual.

- Connect control unit with connection cable to VITA VACUMAT 6000 M and to VITA vPad easy control unit.
- Plug in the vacuum pump.
- Attach the vacuum tube to the vacuum pump.
- Connect the power supply cable.
- Switch on the device using the main switch.
  The lift moves to the lower position, then to the upper position and back to the lower position (lift distance measurement).

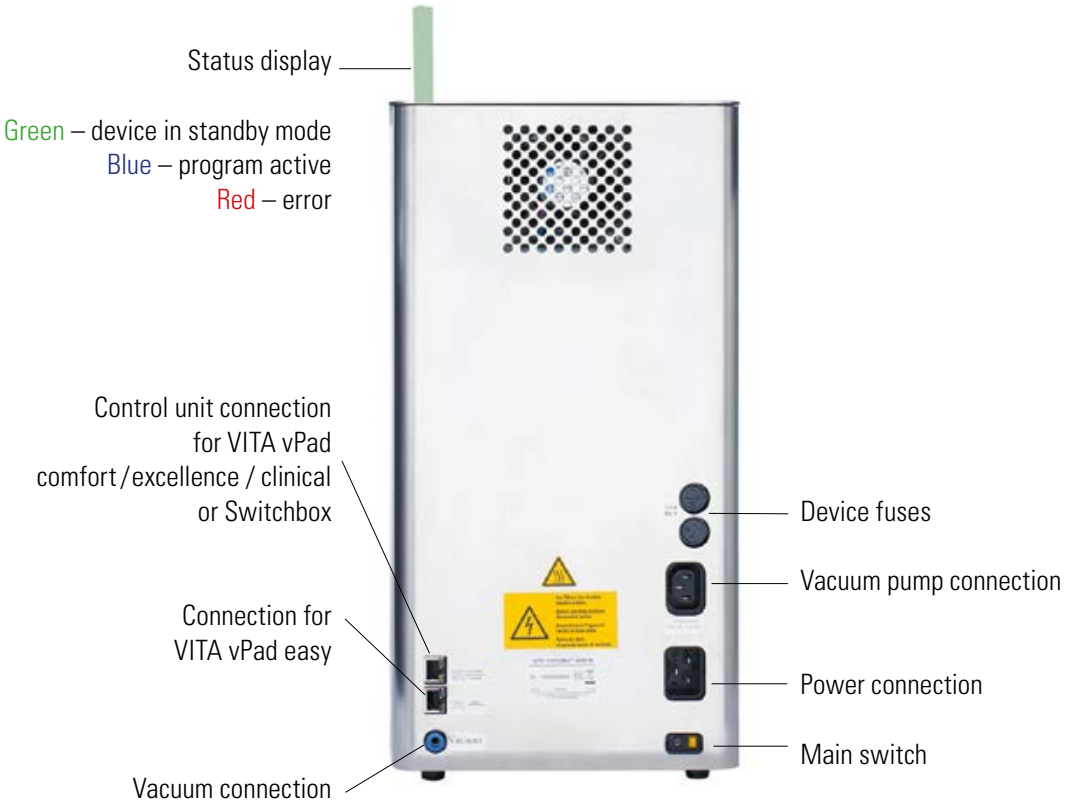
For information about the individual connections, see point 8.1

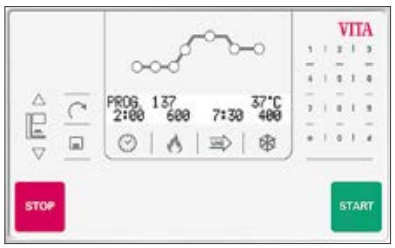
Warning! Attach the firing socket to the lift plate.

Operating the device without a firing socket can damage the device due to the severe effects of the heat.

8.1 Device connections

(see also the VITA VACUMAT 6000 M user manual)





9 Description of the control unit

LED description

LED assignment on the firing curve, from left to right:

- Pre-drying time and temperature
- Pre-vacuum
- Main vacuum
- Temperature rise
- End temperature and holding time for end temperature
- Cooldown temperature
- Cooldown temperature holding time

9.1 Display – description

The 2-line display has the following functions:
Upper line – program number and firing chamber temperature displays.
Lower line – program values, temperature, time and vacuum displays.

After switching on the device, the firing chamber temperature is displayed in the upper right part of the screen.

9.2 Starting Standby

Enter program **no. 00** and press the **#** button to activate: The lift moves in and is heated to standby temperature. Use the **STOP** button to terminate the Standby mode.

The standby temperature can be selected from a range of 200°C – 800°C, using service program **no. 201**.

If the device is switched on using the main switch and the standby mode is started, the lift moves to the upper position and remains open for approx. 10 minutes with an opening of approx. 2-3 cm, permitting the condensation in the insulation to evaporate.

After reaching the standby temperature and remaining constant for 5 min., the device is closed.

9.3 Switching off the device

Enter program **no. 01** and press the **#** button to activate: The lift moves in and the display reads STAND. The device can be switched off using the main switch.

9.4 Fast cooling to standby temperature

Enter program **no. 02** and press the **#** button to activate: The vacuum pump is switched on.

If the firing chamber temperature is higher than the standby temperature, the lift remains in the lower position and the pump is switched on; after the standby temperature minus 50°C is reached, the lift is moved in and heated to the standby temperature.

9.5 Selecting and starting the firing program

Enter the program **no.**
and confirm with the **#** button
Start the program using the **START** button

The lower lines of the display show:
- Pre-drying time
- Rise time
- End temperature holding time
- Cooldown holding time

	Keyboard functions for a running program
	Press when a program is running The display shows the pre-drying and end temperatures.
	Press when a program is running The display shows firing times.
	Press only when a program is running The display shows the vacuum value and time.
	Press when a program is running The display shows the cooldown temperature.
	Press when a program is running Firing program running is terminated.

9.6 Changing program values – entering new ones

The program values can be checked and/or changed after the firing program has been selected.

	Enter the **program selection**, i.e. program **no. 1-200**, confirm with the **#** button and
	Press the **Set** button. The pre-drying LED flashes. The display shows the pre-drying time and temperature.
	Press the **Time** button – the pre-drying time flashes. Change the time using the keypad and confirm the value with the **#** button. Entry ranges: pre-drying time 0 – 40:00 min/sec.
	Press the **Temperature** button - the temperature display flashes. Change the temperature using the keypad and confirm the value with the **#** button. Entry ranges: pre-drying temperature 200°C – 800°C
	Press the **Save** button – the set mode is terminated – press the **Start** button – the program starts
	or check/change additional program values.

	Enter the **program selection**, i.e. program **no. 1-200**, confirm with the **#** button and
	Press the **Set** button – the pre-vacuum LED flashes.
	Press the **Time** button – the pre-vacuum time flashes. Change the time using the keypad and confirm the value with the **#** button. Entry ranges: pre-vacuum 0 – 30:00 min/sec.
	Press the **Save** button – the set mode is terminated – press the **Start** button – the program starts.
	or check/change additional program values.
	Press the **Set** button – the main vacuum LED flashes.
	Press the **Time** button – the main vacuum time flashes. Change the time using the keypad and confirm the value with the **#** button. Max. vacuum time: Temperature rise time plus end temperature holding time.
	Press the **Save** button – the set mode is terminated – Press the **Start** button – the program starts.
	or check/change additional program values.
	Press the **Set** button– the temperature rise LED flashes.
	Press the **Time** button – the rise time flashes. Change the time using the keypad and confirm the value with the **#** button. Entry ranges: 03:00 to 40:00 min/sec. or 20°C/min. – 120°C/min. If a temperature or time value is entered that falls outside the permitted value range, ERROR and the previous value will be displayed again. ⓘ When increasing the temperature, service program **no. 203** also provides the option of selecting an entry for a temperature rise in °C/min. (see point 10, service program **no. 203**). If a value for the temperature rise is entered in min/sec. and the calculated temperature rise is below 20°C/min. or exceeds the max. value of 120°C, a valid rise time in min/sec. is entered automatically. If the pre-drying temperature or the firing temperature are changed after entering the temperature rise, the °C/min. value is retained, and the time in min/sec. is adjusted.
	Press the **Save** button – the set mode is terminated – press the **Start** button – the program starts.
	or check/change additional program values.

	Enter the **program selection**, i.e. program **no. 1-200**, confirm with the **#** button and
	Press the **Set** button – the end temperature LED flashes
	Press the **Temperature** button – the temperature display flashes. Change the temperature using the keypad and confirm the value with the **#** button. Entry ranges: end temperature max. 1,200°C
	Press the **Time** button – the holding time for the end temperature flashes. Change the time using the keypad and confirm the value with the **#** button.
	Press the **Save** button – the set mode is terminated – press the **Start** button – the program starts.
	or check/change additional program values.
	Press the **Set** button – the cooldown temperature LED flashes.
	Press the **Temperature** button – the temperature display flashes. Change the temperature using the keypad and confirm the value with the **#** button**.** Entry ranges: 200°C – 800°C
	Press the **Save** button – the set mode is terminated – press the **Start** button – the program starts.
	or check/change additional program values.
	Press the **Set** button – the cooldown holding time LED flashes. Change the time using the keypad and confirm the value with the **#** button. Entry ranges: holding time 0 – 40:00 min/sec.
	Press the **Save** button – the set mode is terminated – press the **Start** button – the program starts.

9.7 Lift buttons

Lift buttons **Up/Down**
Buttons are active if no firing program or service program has been selected.

9.8 Keypad

0 – 9 = enter temperature and time values
= Confirm
***** = Clear

10 Service programs

All of the programs listed in the table can be selected by entering the listed **program number** on the keypad and confirming it with the **#** button.

Prog. no.	Program	Entry / Description	Display
201 – #	Standby temperature	Press **Temperature** button – value flashes Enter a value and confirm with the **#** button. Entry range: 200°C - 800°C	Display shows standby temperature
202 – #	Temperature calibration	Press **Temperature** button – value flashes Enter a value and confirm with the **#** button. Entry range: +/- 20°C Enter using the keypad The **Set** button selects the minus sign. Finish by pressing the **Save** button.	The display shows value
203 – #	Change rise temperature	Select rise in °C or min/sec using **Set** button Press the **Save** button to finish.	
204 – #	Unassigned		
205 – #	Set lift positions for pre-drying and cooldown Lift interval time	Interval time Entry range: 20 sec. - 2 min. Pre-drying position 1 Entry range: 0 - 30% Press the **Set** button: Pre-drying position 2 Entry range: 30 - 50% Press the **Set** button: Pre-drying position 3 Entry range: 50 - 80% Press the **Set** button: Cooldown lift position Entry range: 0 - 80% Finish by pressing the **Save** button.	The display shows the interval time and Lift position 1 The display shows lift position 2 The display shows lift position 3 The display shows lift position 4 The display shows the firing chamber temperature.

Prog. no.	Program	Entry / Description	Display
206 – #	Lift speed	Press the **Time** button – the value flashes on the display. Enter the value and confirm with the **#** button. Entry range: 0 - 99 Press the **Save** button.	The display shows the value entered. The display shows the firing chamber temperature.
207 – #	Initializing	All the time and temperature values shown in the VITA firing table are input into the memory. **Warning**: Third-party programs will be deleted.	The display shows 'Programs'.
208 – #	Signaling	Press the **Set** button. Option 1 = Signal program is run once. Option 2 = Continuous end signal program. Finish by pressing the **Save** button.	The display shows 1 or 2. The display shows the firing chamber temperature.
209 – #	Operation hours counter	Finish by pressing the **STOP** button.	The display shows the hours of operation. The display shows the firing chamber temperature.
210 – #	Reset to factory settings	Factory settings for • lift speed • temperature calibration • signaling program end Program runs automatically and signals the end with a sequence of beeps	The display shows the firing chamber temperature.
214 – #	Software version	Finish by pressing the **STOP** button	Display shows software version.

11 Error messages

Error no.	Error	Elimination
1	Lift is blocked	Clean lift mechanism
2	Defective fan	Check fan connection – replace fan
3	Vacuum is not calibrated	Clean lift plate seal, clean Check lift plate Check vacuum pump
4	Vacuum is not achieved	Check vacuum pump
5	Defective temperature sensor	Replace temperature sensor
6	Unassigned	
7	Unassigned	
8	Unassigned	
9	Software update has failed	Reinstall software update

12 Firing tables

Please note:
When using dental ceramics, the firing result largely depends on the individual firing procedure of the user, i.e. among other aspects on the type of furnace, the location of the temperature sensor, the firing tray as well as the size of the workpiece during the firing cycles.

Our application-technical recommendations for the firing temperatures (regardless whether they have been provided orally, in writing or in the form of practical instructions) are based on numerous own experiences and tests. The user, however, should consider this information only to provide basic values.

If surface, transparency and degree of gloss should not correspond to the firing result that is achieved under optimal conditions, the firing procedure must be adjusted correspondingly. The crucial factors for the firing procedure are not the firing temperature displayed by the furnace but the appearance and the surface condition of the firing object after the firing process.

Explanation of firing parameters

Predr. °C	Start temperature
→ min.	Predrying time in min, closing time
↗ min.	Heating time in min
↗ °C/min.	Temperature rise rate in degrees Celsius per minute
approx. Temp. °C	End temperature
→ min.	Holding time for end temperature
↘ °C/min.	Cooldown temperature
→ min.	Vacuum holding time in min
VAC min.	Vacuum holding time in min

12.1 VITA VM®7

Prog.-No.	Program	Pre-drying °C	→ min.	↗ min.	↗ °C/min.	Temp. approx °C	→ min.	VAC min.
61	MARGIN firing	500	6.00	7.40	60	960	1.00	7.40
62	EFFECT LINER firing	500	6.00	8.11	55	950	1.00	8.11
63	1st dentine firing	500	6.00	7.27	55	910	1.00	7.27
64	2nd dentine firing	500	6.00	7.16	55	900	1.00	7.16
65	Stains fixation firing	500	6.00	3.00	100	800	0.00	–
66	Glaze firing	500	0.00	5.00	80	900	1.00	–
67	Glaze firing with VITA AKZENT Plus	500	4.00	5.00	80	900	1.00	–
68	Corrective firing with COR	500	4.00	6.00	55	830	1.00	6.00

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12.2 VITA VM®9

Prog. Nr.	Program	Pre-drying °C	→ min.	↗ min.	↗ °C/min.	Temp. approx °C	→ min.	↘ °C	→ min.	VAC min.
48	Cleaning firing	500	3.00	6.00	33	700	5.00	–	–	–
49	Regeneration firing	500	0.00	5.00	100	1000	15.00	–	–	–
52	BASE DENTINE Wash firing *	500	2.00	8.11	60	950	1.00	–	–	8.11
53	MARGIN firing	500	6.00	8.21	55	960	1.00	–	–	8.21
54	EFFECT LINER firing	500	6.00	7.49	55	930	1.00	–	–	7.49
55	1st dentine firing	500	6.00	7.27	55	910	1.00	600**	0.01	7.27
56	2nd dentine firing	500	6.00	7.16	55	900	1.00	600**	0.01	7.16
57	Glaze firing	500	0.00	5.00	80	900	1.00	600**	0.01	–
58	Glaze firing VITA AKZENT Plus	500	4.00	5.00	80	900	1.00	600**	0.01	–
59	Correction firing with COR	500	4.00	4.20	60	760	1.00	500**	0.01	4.20

* For colored VITA In-Ceram YZ please carry out a BASE DENTINE Wash firing.
ATTENTION: Do not carry out this firing for non-colored VITA In-Ceram YZ.

** Long-term cooling down to the respective temperature is recommended **for the last ceramic firing process**; the lift position for VITA VACUMAT furnaces should be > 75%.

When using dental ceramics, the firing result largely depends on the individual firing procedure of the user, i.e. among other aspects on the type of furnace, the location of the temperature sensor, the firing tray as well as the size of the workpiece during the firing cycles.

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If surface, transparency and degree of gloss should not correspond to the firing result that is achieved under optimal conditions, the firing procedure must be adjusted correspondingly. The crucial factors for the firing procedure are not the firing temperature displayed by the furnace but the appearance and the surface condition of the firing object after the firing process.

12.3 VITA VM®9 on VITABLOCS®

Prog.-No.	Program	Pre-drying °C	→ min.	↗ min.	↗ °C/min.	Temp. approx °C	→ min.	VAC min.
42	Stains-fixation VITA AKZENT Plus	500	4.00	4.45	80	880	1.00	–
43	1st individualization firing VITA VM 9	500	6.00	7.49	55	930	1.00	7.49
44	2nd individualization firing VITA VM 9	500	6.00	7.38	55	920	1.00	7.38
45	Glaze firing VITA AKZENT Plus, VITA AKZENT Plus Glaze, VITA AKZENT Plus Glaze Spray, VITA AKZENT Plus finishing agent	500	4.00	5.15	80	920	1.00	–
46	Glaze firing VITA GLAZE LT powder	500	4.00	3.30	80	780	1.00	–
47	Correction firing with VITA VM 9 COR	500	4.00	4.40	60	780	1.00	4.40
104	Glaze firing VITA GLAZE LT Paste	500	6.00	3.30	80	780	1.00	–

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12.4 VITA VM®13

Prog.-No.	Program	Pre-drying °C	→ min.	↗ min.	↗ °C/min.	Temp. approx °C	→ min.	VAC min.
26	Oxidation firing	Follow the instructions of the alloy manufacturer!						
27	WASH OPAQUE firing	500	2.00	5.12	75	890	2.00	5.12
28	WASH OPAQUE PASTE firing	500	4.00	5.12	75	890	2.00	5.12
29	OPAQUE firing	500	2.00	5.12	75	890	1.00	5.12
30	OPAQUE PASTE firing	500	4.00	5.12	75	890	1.00	5.12
31	WASH OPAQUE firing with non-precious alloys	500	2.00	5.52	75	940	2.00	5.52
32	WASH OPAQUE PASTE firing with non-precious alloys	500	4.00	5.52	75	940	2.00	5.52
33	OPAQUE firing with non-precious alloys	500	2.00	5.36	75	920	1.00	5.36
34	OPAQUE PASTE firing with non-precious alloys	500	4.00	5.36	75	920	1.00	5.36
35	MARGIN firing	500	6.00	7.05	55	890	2.00	7.05
36	EFFECT LINER firing	500	6.00	7.05	55	890	1.00	7.05
37	1st dentine firing	500	6.00	6.55	55	880	1.00	6.55
38	2nd dentine firing	500	6.00	6.44	55	870	1.00	6.44
39	Glaze firing	500	0.00	4.45	80	880	2.00	–
40	Glaze firing VITA AKZENT Plus	500	4.00	4.45	80	880	1.00	–
41	Correction firing with COR	500	4.00	6.00	50	800	1.00	6.00

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12.5 VITA VM®15

Prog.-No.	Program	Pre-drying °C	→ min.	↗ min.	↗ °C/min.	Temp. approx °C	→ min.	VAC min.
14	Oxidation firing	Follow the instructions of the alloy manufacturer!						
15	WASH OPAQUE firing	400	2.00	6.00	70	820	1.00	6.00
16	WASH OPAQUE PASTE firing	400	6.00	6.00	70	820	1.00	6.00
17	OPAQUE firing	400	2.00	6.00	70	820	1.00	6.00
18	OPAQUE PASTE firing	400	6.00	6.00	70	820	1.00	6.00
19	MARGIN firing	400	6.00	8.12	50	810	1.00	8.12
20	EFFECT LINER firing	400	6.00	8.12	50	810	1.00	8.12
21	1st dentine firing	400	6.00	8.00	50	800	1.00	8.00
22	2nd dentine firing	400	6.00	7.48	50	790	1.00	7.48
23	Glaze firing VITA AKZENT Plus	400	4.00	4.52	80	790	1.00	–
24	Glaze firing VITA GLAZE LT	400	4.00	4.45	80	780	1.00	–
25	Correction firing with COR	400	4.00	7.00	50	750	1.00	7.00
103	Glaze firing	400	0.00	4.52	80	790	1.00	–

When using dental ceramics, the firing result largely depends on the individual firing procedure of the user, i.e. among other aspects on the type of furnace, the location of the temperature sensor, the firing tray as well as the size of the workpiece during the firing cycles.

Our application-technical recommendations for the firing temperatures (regardless whether they have been provided orally, in writing or in the form of practical instructions) are based on numerous own experiences and tests. The user, however, should consider this information only to provide basic values.

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12.6 VITA VMK MASTER®

Prog.-No.	Program	Pre-drying °C	→ min.	↗ min.	↗ °C/min.	Temp. approx °C	→ min.	VAC min.
90	Oxidation firing	Follow the instructions of the alloy manufacturer!						
91	WASH firing	500	2.00	5.45	80	960	1.00	5.45
92	PASTE WASH firing	500	6.00	5.45	80	960	1.00	5.45
93	OPAQUE firing	500	2.00	5.38	80	950	1.00	5.38
94	PASTE OPAQUE firing	500	6.00	5.38	80	950	1.00	5.38
95	MARGIN firing	500	6.00	8.00	55	940	1.00	8.00
96	LUMINARY firing	500	6.00	8.00	55	940	1.00	8.00
97	Stains fixation firing	500	4.00	4.45	80	880	1.00	4.45
98	1st dentine firing	500	6.00	7.49	55	930	1.00	7.49
99	2nd dentine firing	500	6.00	7.38	55	920	1.00	7.38
100	Glaze firing	500	0.00	5.15	80	920	1.00	–
101	Glaze firing VITA AKZENT Plus	500	4.00	5.15	80	920	1.00	–
102	Correction firing with COR	500	6.00	6.33	55	860	1.00	6.33

Please note:
When using dental ceramics, the firing result largely depends on the individual firing procedure of the user, i.e. among other aspects on the type of furnace, the location of the temperature sensor, the firing tray as well as the size of the workpiece during the firing cycles.

Our application-technical recommendations for the firing temperatures (regardless whether they have been provided orally, in writing or in the form of practical instructions) are based on numerous own experiences and tests. The user, however, should consider this information only to provide basic values.

If surface, transparency and degree of gloss should not correspond to the firing result that is achieved under optimal conditions, the firing procedure must be adjusted correspondingly. The crucial factors for the firing procedure are not the firing temperature displayed by the furnace but the appearance and the surface condition of the firing object after the firing process.

12.7 VITA TITANKERAMIK

Prog. No.	Program	Pre-drying °C	→ min.	↗ min.	↗ °C/min.	Temp. approx °C	→ min.	↘ °C	→ min.	VAC min.
69	Paste bonder firing	400	6.00	6.00	67	800	1.00	–	–	7.00
70	Powder bonder firing	400	2.00	6.00	67	800	1.00	–	–	7.00
71	Opaque firing	400	2.00	4.00	98	790	1.00	400*	0.01	5.00
72	Shoulder firing	400	6.00	7.00	53	770	1.00	400*	0.01	8.00
76	Stains fixation firing	400	4.00	3.00	100	700	1.00	400*	0.01	–
73	1st dentine firing	400	6.00	7.00	53	770	1.00	400*	0.01	8.00
74	2nd dentine firing	400	6.00	7.00	53	770	1.00	400*	0.01	8.00
75	Glaze firing	400	0.00	4.00	93	770	1.00	400*	0.01	5.00
77	Glaze firing VITA AKZENT Plus	400	4.00	4.00	93	770	1.00	400*	0.01	5.00

From the opaque firing on, all firings should be carried out with full vacuum (incl. holding time)

* Long-term cooling down to 400°C is especially recommended for massive restorations.

When using dental ceramics, the firing result largely depends on the individual firing procedure of the user, i.e. among other aspects on the type of furnace, the location of the temperature sensor, the firing tray as well as the size of the workpiece during the firing cycles.

Our application-technical recommendations for the firing temperatures (regardless whether they have been provided orally, in writing or in the form of practical instructions) are based on numerous own experiences and tests. The user, however, should consider this information only to provide basic values.

If surface, transparency and degree of gloss should not correspond to the firing result that is achieved under optimal conditions, the firing procedure must be adjusted correspondingly. The crucial factors for the firing procedure are not the firing temperature displayed by the furnace but the appearance and the surface condition of the firing object after the firing process.

12.8 VITA OMEGA 900

Prog.-No.	Program	Pre-drying °C	→ min.	↗ min.	↗ °C/min.	Temp. approx °C	→ min.	VAC min.
78	Oxidation firing	Follow the instructions of the alloy manufacturer!						
79	WASH OPAQUE powder	600	2.00	4.00	75	900	2.00	4.00
80	WASH OPAQUE paste	500	6.00	6.00	67	900	3.00	6.00
81	OPAQUE powder	600	2.00	4.00	75	900	1.00	4.00
82	OPAQUE paste	500	6.00	6.00	67	900	2.00	6.00
83	MARGIN firing	600	6.00	6.00	50	900	2.00	6.00
84	1st dentine firing	600	6.00	6.00	50	900	1.00	6.00
85	2nd dentine firing	600	6.00	6.00	48	890	1.00	6.00
86	Correction firing with COR	600	4.00	6.00	33	800	1.00	6.00
87	Glaze firing	600	–	4.00	75	900	2.00	–
88	Glaze firing VITA AKZENT Plus Fluid	600	4.00	4.00	75	900	2.00	–
89	Glaze firing VITA AKZENT Plus Glaze	600	4.00	4.00	75	900	1.00	–

When using dental ceramics, the firing result largely depends on the individual firing procedure of the user, i.e. among other aspects on the type of furnace, the location of the temperature sensor, the firing tray as well as the size of the workpiece during the firing cycles.

Our application-technical recommendations for the firing temperatures (regardless whether they have been provided orally, in writing or in the form of practical instructions) are based on numerous own experiences and tests. The user, however, should consider this information only to provide basic values.

If surface, transparency and degree of gloss should not correspond to the firing result that is achieved under optimal conditions, the firing procedure must be adjusted correspondingly. The crucial factors for the firing procedure are not the firing temperature displayed by the furnace but the appearance and the surface condition of the firing object after the firing process.

To obtain an optimum metal/ceramic bond, the ceramic should be under slight compressive strain. A good end result also depends on the size of the restoration to be fired, the type, hardness and thermal conductivity of the alloy used, and particularly on the way in which each individual technician carries out the firing.

Very good results have been achieved for many years when the thermal expansion coefficient of the alloy – measured from 25°C – 600°C – has been between 14.0 and 14.4 x 10^{-6} x K^{-1} and that of the VITA OMEGA 900 Metal Ceramics measured from 25°C – 500°C between 13.4 – 13.9 x 10^{-6} x K^{-1}. If the TEC value of the alloy is higher, the temperature range between 900°C – 700°C must not be passed in less than three minutes during the cooling phase.

12.9 VITA VMK 95

Prog.-No.	Program	Pre-drying °C	→ min.	↗ min.	↗ °C/min.	Temp. approx °C	→ min.	VAC min.
1	Oxidation firing	Follow the instructions of the alloy manufacturer!						
2	WASH OPAQUE firing (powder)	600	2.00	4.00	88	950	1.00	4.00
3	WASH OPAQUE firing (paste)	500	6.00	6.00	75	950	1.00	6.00
4	OPAQUE firing (powder)	600	2.00	4.00	83	930	1.00	4.00
5	OPAQUE firing (paste)	500	6.00	6.00	72	930	1.00	6.00
6	Margin porcelain firing	600	6.00	6.00	55	930	1.00	6.00
7	1st dentine firing	600	6.00	6.00	55	930	1.00	6.00
8	2nd dentine firing	600	6.00	6.00	55	930	1.00	6.00
9	3rd dentine firing	600	6.00	6.00	53	920	1.00	6.00
10	Correction firing with COR	600	4.00	6.00	50	900	1.00	–
11	Glaze firing	600	–	4.00	83	930	1.00	–
12	Glaze firing with AKZENT Fluid	600	4.00	4.00	83	930	1.00	–
13	Glaze firing with AKZENT Glaze	600	4.00	4.00	75	900	1.00	–

When using dental ceramics, the firing result largely depends on the individual firing procedure of the user, i.e. among other aspects on the type of furnace, the location of the temperature sensor, the firing tray as well as the size of the workpiece during the firing cycles.

Our application-technical recommendations for the firing temperatures (regardless whether they have been provided orally, in writing or in the form of practical instructions) are based on numerous own experiences and tests. The user, however, should consider this information only to provide basic values.

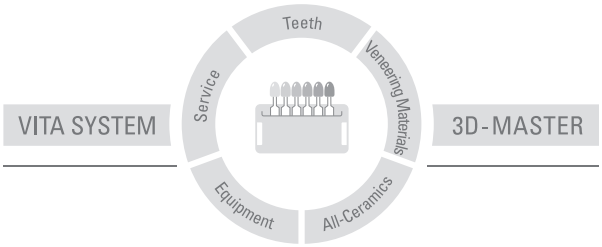
If surface, transparency and degree of gloss should not correspond to the firing result that is achieved under optimal conditions, the firing procedure must be adjusted correspondingly. The crucial factors for the firing procedure are not the firing temperature displayed by the furnace but the appearance and the surface condition of the firing object after the firing process.

To obtain an optimum metal/ceramic bond, the ceramic should be under slight compressive strain. A good end result also depends on the size of the restoration to be fired, the type, hardness and thermal conductivity of the alloy used, and particularly on the way in which each individual technician carries out the firing.

Very good results have been achieved for many years when the thermal expansion coefficient of the alloy – measured from 25 °C – 600 °C – has been between 14.0 and 14.4 x 10^{-6} x K^{-1} and that of the VITA VMK 95 Metal Ceramics measured from 25 °C – 500 °C between 13,4 – 13,9 x 10^{-6} x K^{-1}. If the TEC value of the alloy is higher, the temperature range between 900°C to 700°C must not be passed in less than three minutes during the cooling phase.

13 Alphabetical index

With the unique VITA SYSTEM 3D-MASTER all natural tooth shades are systematically determined and completely reproduced.



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VITA

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