

Instruction for use METOXIT Z-CAD®CAM blanks English

Device Description

Z-CAD® CAM discs are a medical device for the manufacture of dental restorations. The above blanks can be processed with CAD / CAM or copy milling systems.

Z-CAD® zirconium oxide restorations offer excellent properties in terms of biocompatibility, stability and aesthetics. This makes it the first choice for the manufacture of crowns, inlays, onlays, veneers and bridges.

Operating Instructions

1. Frameworks for ceramic veneering should be designed with a hump support and enable a uniform veneer layer thickness.
2. Make sure that the wall thickness is sufficient and maximize the cross-sections of the connectors in a vertically aligned oval shape.
3. Observe the correct positioning and a milling strategy assigned to the design and the blank in the CAM software.
4. Insert the blank according to the operating instructions of the CAM system into the machine and enter the correct factor which is indicated on the collar of the blank.
5. Start the working process.
6. After finishing the processing, remove the blank with the manufactured framework from the CAM system and check it for damage.
7. Use a tapered cutter to separate the framework.
8. Remove the existing grinding dust with a clean brush and by carefully blowing it off with oil-free compressed air.
9. After a coloring process has been carried out (observe the separate instructions), dry the framework before placing it in the sintering furnace.
10. Place the frameworks for sintering in a sinter bowl filled with sinter balls and ensure that there is enough support for all restoration parts.
11. Sinter large span bridges with sintering support structure in vertical position.
12. Program the furnace according to its operating instructions and the Metoxit sintering table.
13. Start the sintering process.
14. Only remove the framework from the oven after it has cooled completely.
15. Check the framework for defects, sufficient wall thickness and fitting. If necessary, make minor adjustments with a water-cooled diamond tool. Rinse the framework under water and dry it. It is now ready for further processing.

Warning and precautions

- This medical device may only be processed by trained personnel.
- Wear gloves, face mask and safety glasses to avoid irritation.
- Observe the information in the current safety data sheet.
- Read the MSDS carefully in the download area: www.metoxit.com

Caution

Federal (USA) law restricts this device to sale by or on the order of a physician or dentist.

Table 1: Sinter instructions

		Ramp Rate °C / h	Tmax °C	Dwell Time h	Cooling
Z-CAD® HD	Crowns, Inlays, Onlays, Veneers	600	1500	1	natural furnace cooling
			1450	2	
	Bridges	300	1500	1	
			1450	2	
Z-CAD® FTL Z-CAD® HTL Z-CAD® HTL Multi Z-CAD® One4All Z-CAD® One4All Multi Z-CAD® smile Z-CAD® smile Multi	Crowns, Inlays, Onlays, Veneers	600	1450	2	
	Bridges	300	1450	2	

For speed sintering, please follow the separate Z-CAD® sintering instruction

Indications for use

METOXIT Z-CAD® CAM-blanks (HD; FTL; HTL; One4ALL; in white, precolored and multi) are intended to produce frameworks such as bars, bridges, crowns, inlays, onlays and veneers. According to the ISO 6872:2019 for 1-16 units.

To be bridged tooth situations are limited to 2 pontics, for the anterior and posterior region.

METOXIT Z-CAD® CAM-blanks (smile in white, pre colored or multi) are limited. According to the ISO 6872:2019 for 1-3 units. To be bridged teeth situations with maximum 1 pontic for the anterior and posterior region.

All Z-CAD® CAM-blanks are indicated to be colored with Z-CAD® Liquids, see appropriate IFU for further information.

Limitations are listed in table 2.

Table 2: Indications of use and maximum number of pontics.

Material*	crowns		bridges, number of pontics	
	Anterior	Posterior	Anterior	Posterior
Z-CAD® HD				
Z-CAD® FTL				
Z-CAD® HTL				
Z-CAD® HTL Multi	X	X	X	X
Z-CAD® One4All			2	2
Z-CAD® One4All Multi				
Z-CAD® smile			X	X
Z-CAD® smile Multi	X	X	1 (max. 3-unit bridge)	1 (max. 3-unit bridge)

X indicated; digits show maximum number of pontics.

* in Canada, bridge indications are limited to 6 units with a maximum of 2 connected pontics.

Contraindications:

Z-CAD® discs should be avoided if you are hypersensitive to any of the ingredients.

Unsuitable preparation.

Insufficient space and parafunction.

Two or more extension pontics

All METOXIT Z-CAD® CAM discs are exclusively intended for use by or according to the instructions of a dentist / dental technician.

These discs are not intended for general use or as a commercially available product.

Z-CAD® HTL Multi and *smile* Multi

Application guidelines

The Metoxit Z-CAD® HTL Multi and smile Multi discs cover the respective printed area.

They are available in the 4 main shade groups (A, B, C, D) with 2 divisions (light and dark) in order to achieve common tooth shades, comparable to the * Vita classical A1-D4® shade system.

In order of course to achieve color transitions quickly and economically for monolithic restorations from cervical to incisal, the height positioning of the crown or bridge (vertical displacement in the nesting) plays a major role.

In an A Light Blank, for example, the colors A3, A2 and A1 can be achieved from bottom to top. The same applies to the other color groups.

The blank heights of 14, 18 and 22 mm ensure that there is sufficient space for the vertical displacement of the restoration. The higher the blank is selected, the easier the positioning in the light or dark area.

The Metoxit Z-CAD® blanks can also be colored with coloring liquids for individualization or, if necessary, can be finalized with stains or glaze after successful final sintering.

The symbol on the collar of the blank depicts the color gradient from light to dark.



Z-CAD® HTL and *smile* Multi 3-layer range according to the Vita classical A1-D4 * shade guide

	A-Light	A-Dark	B-Light	B-Dark	C-Light	C-Dark	D-Light	D-Dark
33% Enamel Layer	A1	A2	B1	B2	C1	C2	D1	D2
33% Gradational Layer	A2	A3	B2	B3	C2	C3	D2	D3
33% Dentin Layer	A3	A4	B3	B4	C3	C4	D3	D4

*VITA classical A1-D4® is a registered trademark of VITA Zahnfabrik H. Rauter GmbH & Co. KG in Bad Säckingen.

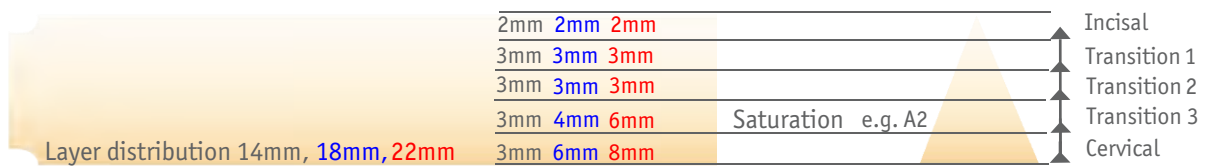
Z-CAD® One4All Multi Application guidelines

Z-CAD® One4All Multi are available in 16 colors according to the Vita classical A1-D4 * shade guide. Three available heights (14, 18 and 22mm) allow an easy reproduction of any restorative situation by choosing the color and the according blank height.

No nesting movement in need, because of the constant incisal edge and the following transition layers.

The symbol on the circumference of the blank depicts the color gradient from light to dark. 

Z-CAD® One4All Multi 5-layer according to the Vita classical A1-D4 * shade guide












*VITA classical A1-D4® is a registered trademark of VITA Zahnfabrik H. Rauter GmbH & Co. KG in Bad Säckingen

Storage and handling:

Before using for the first time, please check that the packaging and contents are intact. Check the declaration on the label and the blank for equality. Never use damaged material.

Always store blanks in the original packaging, clean, cool, dry and avoid vibrations and contact with liquids.

	MANUFACTURER
	CE MARK WITH THE NUMBER OF THE NOTIFIED BODY
	OBSERVE THE INSTRUCTION FOR USE
	FOR DENTAL PROFESSIONALS ONLY (USA)
	ITEM NUMBER
	BATCH CODE
	STORE DRY
	EXPIRE DATE
	DEPICTS THE COLOUR GRADIENT FROM LIGHT TO DARK.

Z-CAD® is a registered name and trademark of Metoxit AG

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