

## Instruction for use METOXIT Z-CAD® CAM-Blanks

### Device Description

Z-CAD® CAM-blanks are indicated for the production of dental-prosthetic restorations.

The blanks named above can be machined with CAM, CAD/CAM or copy milling systems commonly used in dental medical technology to produce dental-prosthetic restorations made from zirconium oxide. This material offers excellent properties with regards to bio-compatibility, stability and aesthetics, which make it the material of choice for the production of restorations for dental crowns, inlays, onlays, veneers, and bridges, which in turn combine the advantages of conventional casting technology and full ceramics.

Dental technicians are therefore in a position to offer patients the extra added value when finishing the prosthesis.

### Operating Instructions

1. Insert the blank in the machine according to the operating instructions of the CAM system and enter the correct factor given on the blank.
2. Start the machining process, taking care that the wall thicknesses are adequate, and the positioning of the restorations are correct. Choose the appropriate milling strategy in the CAM software.
3. After finishing of the machining process, remove the blank with the milled restoration from the CAM system and check for damage.
4. Remove the restoration from the blank with a diamond grinding tool.
5. Remove the existing zirconia dust with a clean brush and / or by careful blowing with compressed air.
6. In the case of a possibly executed dyed white Z-CAD® CAM-blanks restorations, dry them before placing them on the sintering tray after the dyeing process.
7. Place the restoration for sintering in a sintering bowl filled with ceramic beads; apply light pressure to the beads to ensure good support.
8. Program the kiln furnace according to its operating instructions and the Metoxit sinter table.
9. Wait until cool down is completed before removing the sintered restoration.
10. Inspect the restoration in respect of flaws, wall thickness, and fit. If necessary, make small adjustments with a water-cooled diamond tool.
11. Rinse the restoration with water and dry it. It is now ready for finishing or veneering.

### Warning and precautions

- Design the restoration to maximize cross-sections.
- Carefully read the MSDS in the download area: [www.metoxit.com](http://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	T <sub>max</sub> °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® HTL Z-CAD® FTL Z-CAD® One4All Z-CAD® smile Z-CAD® HTL Multi Z-CAD® smile Multi	Crowns, Inlays, Onlays, Veneers	600	1450	2	

For Speed-Sintering a furnace specific trial should be conducted.

## Indications for use

METOXIT Z-CAD® CAM-blanks are indicated for the preparation of full ceramic crowns, inlays, onlays, veneers and 3 unit bridges in the anterior area. Limitations are listed in table 1. All white Z-CAD® CAM-blanks are indicated to be coloured with Z-CAD® Liquids, see appropriate IFU for further information. It is not allowed to colour pre-coloured frameworks with Z-CAD® Liquids.

**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® HTL Z-CAD® FTL Z-CAD® One4All Z-CAD® HTL Multi	X	X	2	2
Z-CAD® smile Z-CAD® smile Multi	X	X	1 (max. 3 units)	1 (max. 3 units)

X indicated; digits show maximum number of pontics.

All METOXIT Z-CAD® CAM-blanks are solely for use by or on the order of a dental professional. They are not for use by the general public or over-the-counter.

## Application guidelines

Metoxit Z-CAD® Multi blanks cover the colour range indicated on the blanks.

To allow reproduction of all natural tooth colours, Metoxit Z-CAD® Multi blanks are available in the Vita classical A1-D4\* shade guide.

The application is really simple: to achieve smooth colour transitions quickly and economically for monolithic dental restorations with a natural appearance from the cervical to the incisal part, adjust the placement of the crown or bridge in the height of the blank during the nesting procedure. This means that, for example in an A-Light blank, from bottom to top the shades A3, A2 and A1 are available. The same is true for the other colour combinations according to the shade groups listed below.

The available blank heights of 14, 18 and 22 mm ensure that sufficient flexibility is provided to shift the restoration vertically. Choosing a higher blank simplifies the placement in the lighter or darker region of the blank.

Metoxit Z-CAD® Multi blanks may not be dyed using dyeing liquids, but should rather be finalized after sintering using stains or enamel, if required.

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



## Z-CAD® HTL Multi and smile Multi colour ranges 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.

## Contraindications

Contraindications are all applications not indicated in table 1.

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

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



METOXIT AG  
Emdwiesenstrasse 6  
CH-8240 Thayngen  
Switzerland  
[www.metoxit.com](http://www.metoxit.com)

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