

Product description

Z-CAD® CAM blanks are a medical device for the production of dental restorations. The discs 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 them the first choice for producing crowns, inlays, onlays, veneers and bridges.

Instructions for use

1. Frameworks for ceramic veneers should be constructed with cusp support and allow a uniform veneer layer thickness.
2. Make sure that the wall thickness is sufficient and maximise the cross-sections of the connectors in a vertically-aligned oval shape.
3. Observe the correct positioning and the appropriate milling strategy for the design and the blank in the CAM software.
4. Insert the blank into the machine according to the operating instructions of the CAM system and enter the correct factor indicated on the collar of the blank.
5. Start the machining process.
6. Once the processing is finished, remove the blank with the manufactured framework from the CAM system and check it for damage.
7. Use a tapered milling cutter to separate the framework.
8. Remove any grinding dust with a clean brush and by carefully blowing it off with oil-free compressed air.
9. After a colouring process has been carried out (follow the separate instructions), dry the framework before placing it in the sinter bowl.
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 sinter 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. Remove the framework from the oven only after it has cooled completely.
15. Check the framework for defects, sufficient wall thickness and fit.
16. If necessary, make minor adjustments with a water-cooled diamond tool.
17. Rinse the framework under water and dry it.
18. It is now ready for further processing.

Advice and precautions

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

Caution

Under US Federal law, this device may only be sold to or on the order of a physician or dentist.

Table 1: Sinter instructions

Material		Ramp rate °C/h	Tmax °C	Dwell time h	Cooling
Z-CAD® HD	Crowns, inlays, onlays, veneers	600	1,500	1	Natural furnace cooling
				2	
	Bridges	300		1	
				2	
Z-CAD® One4All Z-CAD® One4All Multi -MX Z-CAD® Smile Z-CAD® Smile Multi	Crowns, inlays, onlays, veneers	600	2		
	Bridges	300	2		

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

Operating instructions for METOXIT Z-CAD® CAM blanks
Version: February 2022/EN

Indications for use

METOXIT Z-CAD® CAM blanks (HD; One4All and Smile; in white, pre-coloured and multicoloured) are intended for the production of frameworks such as bars, bridges, crowns, inlays, onlays and veneers. According to ISO 6872:2019 for 1-16 units. Tooth situations to be bridged are limited to 2 pontics for the anterior and posterior region. METOXIT Z-CAD® CAM blanks (Smile, in white, pre-coloured and multicoloured) are limited. According to ISO 6872:2019 for 1-3 units. Tooth situations to be bridged with maximum 1 pontic for the anterior and posterior region. All Z-CAD® CAM blanks can be coloured with Z-CAD® liquids. Further information is available in the relevant operating instructions. Limitations are listed in Table 2.

Table 2: Indications for use and maximum number of pontics

Material*	Crowns		Bridges, number of pontics	
	Anterior teeth	Posterior teeth	Anterior teeth	Posterior teeth
Z-CAD® HD				
Z-CAD® One4All	X	X	X 2	X 2
Z-CAD® One4All Multi -MX				
Z-CAD® Smile	X	X	X 1	X 1
Z-CAD® Smile Multi			(max. 3 units)	(max. 3 units)

X indicated; digits show maximum number of pontics.
In Canada, bridge constructions are limited to 6 units with a maximum of 2 connected pontics.

Contraindications

Z-CAD® blanks should be avoided in the case of hypersensitivity to any of the ingredients. Unsuitable preparation. Insufficient space and parafunction. Two or more extension pontics. Sämtliche METOXIT Z-CAD® CAM blanks are exclusively intended for use by or according to the instructions of a dentist/dental technician. These blanks are not intended for general use or as a commercially available product.

Z-CAD® Smile Multi Indications for use

The Metoxit Z-CAD® Smile Multi blanks cover the respective printed area. They are available in the 4 main shade groups (A, B, C, D) with 2 grades (light and dark) to achieve common tooth shades, comparable to the *Vita classical A1-D4® shade system. In order to achieve natural colour 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 colours A3, A2 and A1 can be achieved from bottom to top. The same applies to the other colour 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 selected, the easier the positioning in the light or dark range. The Metoxit Z-CAD® Multi blanks can also be coloured with colouring liquids for individualisation or, if necessary, finalised with stains or glaze after successful final sintering.

Z-CAD® HTL and Smile Multi 3-layer according to the Vita classical A1-D4* colour scale

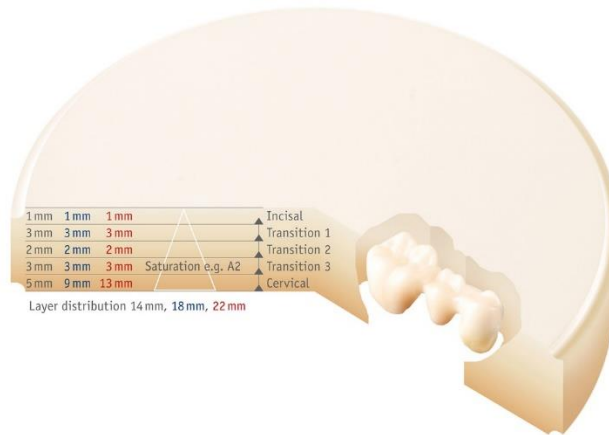
	A Light	A Dark	B Light	B Dark	C Light	C Dark	D Light	D Dark	BL
33% Enamel Layer	A1	A2	B1	B2	C1	C2	D1	D2	BL1
33% Gradational Layer	A2	A3	B2	B3	C2	C3	D2	D3	BL2
33% Dentin Layer	A3	A4	B3	B4	C3	C4	D3	D4	BL3

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

Z-CAD® One4All Multi-MX Indications for use

Z-CAD® One4All Multi-MX blanks are available in 16 colours according to the Vita classical A1-D4* shade scale, as well as in three heights (14, 18 and 22 mm). This allows an easy reproduction of any restorative situation by choosing the colour and the appropriate blank height. No nesting movement is necessary because of the constant incisal edge and the following transition layers. The Metoxit Z-CAD® One4All blanks can also be coloured with colouring liquids for individualisation or, if necessary, finalised with stains or glaze after successful final sintering.

Z-CAD® One4All Multi MX



This symbol on the edge of the blanks indicates the colour gradient from light to dark.

Storage and handling

Before using for the first time, please check that the packaging and contents are intact. Check that the statement on the label and the blank are the same. Never use damaged material. Always store blanks in the original packaging, clean, cool and dry, and avoid vibrations and contact with liquids.

Note to users and patients

Serious incidents related to the product must be reported to the manufacturer or its EC representative and to the competent authority of the Member State in which the user or patient is located;

Description of symbols

	Hersteller / Manufacturer		Medizinprodukt / Medical device
	0297 CE-Kennzeichen mit Kennnummer / CE marked with the number of the notified body		Artikelnummer / Item number
	Europäischer autorisierter Vertreter / European Authorised Representative		Chargenbezeichnung / Batch number
	Europäischer Importeur / European importer		Herstelldatum / Date of manufacture
	www.metoxit.com Benutzeranweisungen beachten / Observe the instructions for use		Mindesthaltbarkeitsdatum / Expiry date
	Nur für Zahnärzte und Zahntechniker / for dental professionals only		Trocken Lagern / Store dry
	Beschreibt den Farbgradient von hell nach dunkel / Describes the colour gradient from light to dark		Unsteril / Non sterile

Trademark

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

Manufacturer



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