



Instruction for us

State 3/2019

1. **General information:** The K2 Zircon Blanks from Yeti are medical devices for application of dental restorations. The present documents contains instructions which must be followed to assure a correct use and to ensure the compliance of the conditions. It is necessary to read this document before the first use of the K2 Zircon Blanks.

	Diam.	Color	Item No.	10mm	12mm	14mm	16mm	18mm	20mm	25mm
1.1. Product:	98,5mm	white classic	396.....	-0010	-0012	-0014	-0016	-0018	-0020	-0025
	98,5mm	translucent	397.....	-0010	-0012	-0014	-0016	-0018	-0020	-0025
	98,5mm	extreme translucent	397....	-2010	-2012	-2014	-2016	-2018	-2020	-2025
	95mm	white classic	396....	-1010	-1012	-1014	-1016	-1018	-1020	-1025
	95mm	transparent	397....	-1010	-1012	-1014	-1016	-1018	-1020	-1025
	95mm	extreme translucent	397....	-3010	-3012	-3014	-3016	-3018	-3020	-3025
	Diam.	Color	Item No.	A1	A2	A3	A3,5	B1	B2	C2
	98,5x14mm	layered Geo 5	396...	-9014	-9114	-9214	-9314	-9414	-9514	-9614
	98,5x16mm	layered Geo 5	396...	-9016	-9116	-9216	-9316	-9416	-9516	-9616
	98,5x18mm	layered Geo 5	396...	-9018	-9118	-9218	-9318	-9418	-9518	-9618
	98,5x20mm	layered Geo 5	396...	-9020	-9120	-9220	-9320	-9420	-9520	-9620

- 1.2. **Manufacturer adress:**  YETI Dentalprodukte GmbH, Industriestraße 3, 78234 Engen, Germany
Phone : +49 7733-94100 **Fax:** +49 7733-941022 **e-mail-adress:** info@yeti-dental.com

2. General Instructions

Yttrium stabilized Zircon oxide. The factors of the enlargements are indicated on the Zircon Blank. This information can be varied depending on the lot and should be followed by dental qualified personnel for the dental restoration and requirements in the mouth of the patient. It is a ceramic and from this ceramic will be produced zircon constructions made to measure according to the processing rules of the dentist. This must be machined by a manual or CNC-controlled processing system and comply with the significant requirements of the EU-Directive 93/42. Store frost proof, keep away from impurities and protect from shocks and impacts. After use put the remaining Zircon Blank back to the original packaging.

3. Indication for use

Zircon Blanks are used for milling using digital stl-files to produce Crowns, Bridges and monolithic works. We propose the K2 Zircon Blanks for anterior and posterior restorations.

Table 1: Indication of use and maximum intermediate elements

	Single Crown		Bridges	
	Anterior	Posterior	Anterior	Posterior
K2 Zircon Blank white classic	X	X	2	2
K2 Zircon Blank translucent	X	X	2	2
K2 Zircon Blank extreme translucent	X	X	1	1
K2 Zircon Blank layered Geo 5	X	X	1	1

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All K2 Zirkon Blanks (except the K2 zirkonium blank layered GEO 5, which is not allowed to be coloured with colouring liquid) are indicated to be colored with Dip & Brush K2 CAD CAM Zircon Liquids. K2 Zircon Blanks should be not used by the General public or over-the-counter.

3.1 Operating instructions

The processing of the Zircon Blank requires sufficient experience in the area of dental technology. Only trained dental technicians with experience have the prerequisites for the appropriate use of this medical device. The product K2 Zircon Blank is a semi-finished product and must be further professionally processed by approved methods. In case of constructions of bridges, it is recommended to strengthen the connection points with a modeling support (garland). Please always pay attention to the thickness of the wall. Restorations up to max. 14 units are possible.

The K2 Extreme translucent zirconium blanks is a highly-translucent zirconium, which is particularly suitable for monolithic restorations and in the anterior and posterior region for restorations of max. 3 units are suitable. More units than our recommendations are not allowed!

The K2 zirconium blanks layered Geo 5 are perfect suitable for monolithic restorations. Vertical height positioning is very important for the coloring in the restoration. The blank heights of 14, 16, 18 and 20 mm ensure that there is sufficient space for the vertical movement of the restoration. The higher the blank, the easier the positioning in the lighter or darker area. Restorations up to max. 14 units are possible.

Please always enter the correct shrinkage factor.

3.2 Coloring

Dipping the milled Zircon element depending on the original Instruction with a plastic holder in the color Dip & Brush K2 CAD CAM Zircon Liquid or paint it (infiltration technique). **Never use a metal holding device.** After dipping carefully blow with compressed air on a absorbing paper to remove excess liquid. Let the color surface dry under infrared lamps or with an open door in the oven for 30 minutes. After that, place the Zircon elements in the sinter furnace.

The K2 zirkonium blank layered GEO 5 is not allowed to be coloured with colouring liquid.

3.3 Sintering process

Place the colored zirconium elements at room temperature in the sintering bowl filled with sinterballs, than place the bowl in the sintering furnace and follow the parameters. Please consider the following table. The information regarding the speed-sintering is not available at the moment.

Table 2: Recommended Sinter Parameters

		Heating rate	Temp. max	Settings	Cooling
White classic	Crown	600°C/h	1500°C	1h	Furnace Cooling
			1450°C	2h	
	Bridge	300°C/h	1500°C	1h	
			1450°C	2h	
translucent & extreme translucent Layered Geo 5	Crown	600°C/h	1450°C	2h	
	Bridge	300°C/h	1450°C	2h	

Dental reconstructions produced in this way can not be changed or corrected. The thickness of produced dental frameworks must be at least 0.5 mm. It can be used only in combination with dental ceramic powder suitable for Zircon.

Zircon as all other mineral elements is a slightly radioactive material, this radioactivity with 0.3 Bq / tooth is so small that it practically cannot be measured. By comparison, the radioactivity of an adult person is about 6000 Bq.

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4. Storage and Application information

You can produce dental reconstructions from K2 Zircon Blanks until the product is completely used.

In case of use, impact K2 Zircon Blank can get cracks or breaks, therefore it is recommended to

- store and transport the blanks in original package
- handle with care, avoid banging and knocking
- make visual inspection of complete surface to check if cracks are available. In case of doubt do not use especially after impact (risk of cracks during sintering).

K2 Zircon Blank is porous and has a white color. The K2 Zircon Blank based on Yttrium stabilized Zircon powder.

Unpack the product with care. Take care that it will not be impacted. Avoid shocks. Fix K2 Zircon Blank carefully in the machine, do not clamp to tightly. In this point follow exactly the instructions of the machine producer. Set the values (like scaling) in accordance with processing instructions of K2 Zircon Blank and process the material as mentioned. After sintering cool down to room temperature before continue the process.

Clean Zircon reconstructions with 50 µm aluminium oxide, sand blasting and steamer. Ceramic powder can be now applied. Before application of reconstructions into the patients mouth take care with common clinical practice.

5. Contraindications

Are all applications not indicated in Table 1 or at 3.1 (Maximum intermediate elements) Bite conditions, tooth condition or age of patients who make a ceramic restoration inadmissible according to dental opinion. Hypersensitivity of the patient to zirconia or its components

6. Warning and Precautions

It's important to respect Manufacturer's information or not exceed 20 000 UPM during the milling process. The processing must be slow and soft to ensure a precise edging. Do not continue to process structures with material defects (cracks, flaking). Do not dispense with eye protection, mask and suction device during processing.

Do not touch restorations when hot. Only process zirconium oxide if there are no hypersensitivity to components. Only apply sintered restorations to the patient's mouth.

7. Warranty

K2 Zircon Blank has the warranty of 1 year on manufacturing defaults caused by material problems.

The warranty is not applicable in following cases

- in case of improper use or in case of non observance of this instruction for use
- non appropriate usage of K2 Zircon Blank, negligence during production of reconstructions from blank or in case of mistakes during the CAD construction.
- shipment damage during forwarding which was not covered by the forwarding company.

In warranty case Yeti delivers the replacement for the raw (not processed) product free of charge. The replacement takes place only after the damaged item is forwarded to Yeti for detailed examination. No other compensations are possible.

7.1 Customer service

In case of possible problems during processing or improvement suggestions, we advise you to note the batch code and to contact Yeti as soon as possible.

7.2 Disposal

After the usage of the dental restorations in the patient mouth, the product should be disposed according to local regulations as medical hazardous waste.

7. Caution

All legal requirements for ordering, processing and disposal must be taken into account.

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

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9. Symbols

	MANUFACTURER
	CE MARK WITH THE NUMBER OF THE NOTIFIED BODY
	OBSERVE THE INSTRUCTION FOR USE
	FOR DENTAL PROFESSIONALS ONLY (USA)
	NON STERILIE PRODUKT
	ITEM NUMBER
	BATCH CODE
	PRODUCTION DATE
	EXPIRE DATE

Technical specifications:

Form
Disk

Size (mm)
95.0 or 98.5

Strongness (mm)
10 -12 -14 - 16 -18 -20 -25

Weight (g)
250 bis 635

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