

1. **General information:** The zirconia blanks from Yeti Digital are medical products for application in the dental area of the denture. 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 zirconia blanks.

	Diam.	Color	Item No.	10mm	12mm	14mm	16mm	18mm	20mm	22mm	25mm
1.1. Product:	98,5mm	white classic	396.....	-0010	-0012	-0014	-0016	-0018	-0020	-0022	-0025
Zirconia blank	98,5mm	transparent	397.....	-0010	-0012	-0014	-0016	-0018	-0020	-0022	-0025
	98,5mm	extr.transl.	397....	-2010	-2012	-2014	-2016	-2018	-2020	-2022	-2025
	95mm	white classic	396....	-1010	-1012	-1014	-1016	-1018	-1020	-1022	-1025
	95mm	transparent	397....	-1010	-1012	-1014	-1016	-1018	-1020	-1022	-1025
	95mm	extr.transl.	397....	-3010	-3012	-3014	-3016	-3018	-3020	-3022	-3025

- 1.2. **Manufacturer adress:** YETI Dentalprodukte GmbH, Industriestraße 3, D-78234 Engen, Germany
Tel. : +49 7733-94100 **Fax:** +49 7733-941022 **e-mail-adress:** info@yeti-dental.com
Dental questions: +49 7733-9410-20

2. Yttrium stabilized zirconium oxide. The factors of the enlargements are indicated on the zirconia blanks. This information can be varied depending on the lot and should be followed by dental qualified personnel for the dental restoration 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 zirconia blank back to the original packing.

3. Instructions for use:

3.1 Hints for the processing:

The processing of the zirconia blank requires sufficient experience in the area of dental technology. Only trained dental technician with experience have the prerequisites for the appropriate use of this medicine product. The product zirconia 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). It can be used in the anterior and posterior bridges up to 2 elements. The product K2 Zircon Blank Translucent Extrem can be used both in the frontal region, as well as in the rear for the construction of the bridges up to 3 intermediate elements. Spans about our recommendations are inadmissible! It is a highly-translucent zirconia, which is particularly suitable for monolithic works. We recommend for the processing of the blank the use of a milling bur with 3 cutting sizes and a diameter of 3 mm. For the finishing use a ball cutter with two cutters and a diameter of 1 mm. It's important not to exceed 20 000 UPM during the milling process. The processing must be slow and soft to ensure a precise edging.

3.2 Coloring

Dipping the milled zirconia element depending on the original Instruction with a plastic holder in the color K2 Dip & Brush 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 zirconia element in the sinter furnace.

3.3 Sintering process

Place the colored zirconia element with room temperature in the sinter furnace. See below:

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		Heating rate	Temp. max	Hold time	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	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 ceramics suitable for zirconia. Zirconia as all other mineral elements is 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.

3.4 Storage information

You can produce dental frameworks from zirconia blanks until the product is completely used.

In case of use, impact zirconia 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).

The final construction must be cleaned and disinfected by the dentist before application into the patients mouth.

Zirconia blank is porous and has white color. The zirconia based ceramics (Yttrium stabilized zirconium) is provided in discs.

Unpack the product with care. Take care that it will not be impacted. Avoid shocks. Fix zirconia blank carefully in the machine, do not clamp to tightly. In this point follow exactly the instructions of the machine producer. Set the values in accordance with processing instructions of zirconia blank, process the material as mentioned. Make sintering at 1450-1500°C (degrees Celsius), cool down to room temperature before continue the processing.

Clean zirconia framework with 50 µ aluminium oxide, sand blasting and steamer. Ceramic powder can be now applied.

Before application of framework into the patients mouth, cleaning and disinfection must take place in accordance with common clinical practice.

4.0 Warranty and Safety information

Zirconia 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 manual
- non appropriate usage of zirconia blank, negligence during production of frameworks from blank or in case of mistakes during construction of the dental framework.
- shipment damage during forwarding which was not covered by the forwarding company.

In warranty case Yeti Dentalprodukte GmbH 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 Dentalprodukte GmbH for detail examination. No other compensations are possible.

4.1 Customer service:

In case of possible problems during processing or improvement suggestions, we advise you to note the lot number and to contact Yeti Dentalprodukte GmbH.

4.2 Disposal:

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

Technical data:

Form	Size (mm)	Strongness (mm)	Weight (g)
Disk	98.5x10	10 -12 -14 - 16 -18 -20-25	250 bis 635

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