

Zertifikat

NAME OF PRODUCT: **Kera[®]Ti 5-Disc**

DESCRIPTION: Non-precious-dental milling alloy on titanium-aluminium-vanadium base

MEASURE: with step
Ø 98,5 x 14 mm
Ø 98,5 x 12 mm
Ø 98,5 x 10 mm
Ø 98,5 x 16 mm
Ø 98,5 x 18 mm

LOT / BATCH.NO.: Ti 32-14

CHEMICAL COMPOSITION:



0434

aluminium %	vanadium %	nitrogen %	iron %	oxygen %	carbonate %
6,36	4,10	0,01	0,03	0,10	0,01
hydrogen %	titan %				
0,005	Rest				

TYPICAL TECHNICAL DATA:

Yield strength 0,2%:	760 MPa – 850 MPa
Elongation:	8 % - 14 %
Tensile strength:	525 MPa – 985 MPa
Density:	4,4 g/cm³
Melting Point (Solidus/Liquidus):	1650 °C ± 50 °C
Value of Extension (25 – 500°C):	~ 10 x10⁻⁶K⁻¹
Hardness*¹:	310 HV 10 ± 41 HV 10
Burning temperature:	ca. 980 °C

*Excel-List Test MP **1 With appropriate sample preparation

NORM: **ASTM F 136**
ED GmbH is certified according to
DIN EN ISO 13485:2003 / DIN EN ISO 9001:2008
with appendix V MP-recommendation 93/42/EWG



Instruction for use
Titanium alloy Kera[®]Ti 5-Disc
(according to DIN EN ISO 9693-1 and DIN EN ISO 22674)



Intended use

Kera[®]Ti 5-Disc is a titanium bonding alloy for the production of milled crowns and bridges.

Not intended for the production of implants!

General guidelines for handling

This instruction for use includes important processing steps and recommendations for Kera[®]Ti 5-Disc.

Indication

- Implant retained superstructures
- Bars
- Crowns and bridges for the veneering with ceramic and composite

Milling

Kera[®]Ti 5-Disc is construed for CNC milling machines. Please follow the instructions and parameters of the respective manufacturer of CAM Software and CNC milling machine.

CAD

The design should be done with appropriate CAD software. Please consider an anatomically reduced framework design for the veneering with ceramic. The wall thickness should not be less than 0.3 mm. Choose a sufficient connector dimension (6-9 mm²). Sharp edges and undercuts should be avoided.

Cutting out the frameworks from the Blank

Remove the milled frameworks with suitable cutting tools and smoothing the supports.

Laser welding

Sufficient and secure connections can only be done by laser welding. The use of Ti-welding wire is an option.

Preparation before ceramic veneering

The frameworks can be elaborated with standard carbide cutters, look for smooth transitions and avoid overlapping material. Please use the same cutter for one alloy to avoid contamination. The minimum thickness of the prepared coping should not be less than 0.3 mm. It's recommended to sandblast the frames with 125 µm of Aluminium oxide with 2-3 bar and clean with steam cleaner. Consider the firing process with max. 800°C, Otherwise lattice transformation could be occurring.

Handling conditions / Safety

Metal dust is harmful to health. Use when grinding and sandblasting dust extraction and respirator with filter FFP3-EN149.

Contraindications and side effects

If the instructions are observed during the production processes, incompatibilities with non-precious dental alloys are extremely rare. In case of a proven allergy against an ingredient of this alloy, the alloy must not be used for safety reasons. In exceptional cases, electrochemically induced, local irritations have been reported. When different alloy groups are used, galvanic effects might occur.

Disposal Instructions

Consult the material safety data sheets or national regulations for disposal.

Storage conditions

Temperature, humidity or light has no effect on the product properties.

Quantity

Please consider the label on the package.

Our information and recommendation are based on the state of the art in science and technology and has to be considered correct to the best of our knowledge and experience on this day. The above version shall replace any previous versions.

