

Zertifikat

NAME OF PRODUCT: **Kera®-Disc**
DESCRIPTION: Non-precious-dental milling alloy on cobalt-base, type 4
MEASURE: Ø 99,5 x 15 mm
Ø 99,5 x 16 mm
Ø 98,3 x 16 mm
LOT / BATCH.NO.: B 15-765



0434

CHEMICAL COMPOSITION:

Co %	Cr %	W %	Si %	Mn %	Fe %	C%
62,13	27,72	8,23	1,59	0,16	0,05	0,02

REMARKS REGARDING THE CHEMICAL COMPOSITION:

DETERMINATION, EXTENT AND VALIDITY OF THE CHEMICAL COMPOSITION according to EN 10 204 – 3.1

TYPICAL TECHNICAL DATA:

After casting:

Yield strength 0,2%: 375 MPa
Elongation: 14,7 %
Tensile strength: 525 MPa
Young's module: 240 GPa

Density: 8,55g/cm³
Corrosion resistance: < 200 µg cm²
Melting Point (Solidus/Liquidus): 1410 °C / 1418 °C
Value of Extension (25 – 500°C): ~ 14,5 x 10⁻⁶K⁻¹
Casting temperature: 1518 °C
Hardness: 285 ± 60 HV 10/30
Max. firing temperature: ca. 980 °C
Storage conditions: no
Ceramic: Vita VM 13
Vita VMK Master incl. Bonder

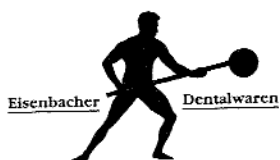
After ceramic firing:

Yield strength 0,2%: 375 MPa
Elongation: 14,7 %
Tensile strength: 525 MPa
Young's module: 240 GPa

* With appropriate sample preparation reference batch B12-287

NORM:

DIN EN ISO 22674:2006
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

Bonding alloy Kera[®]-Disc, type 4

(according to DIN EN ISO 9693-1 and DIN EN ISO 22674)



0434

Intended use

Kera[®]-Disc is a beryllium- and nickel-free non-precious bonding alloy for the production of milled crowns and bridges.

General guidelines for handling

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

Indication

- Crowns and wide-span bridges up to 16 units (max. 4 pontics in the anterior region and max. 3 pontics in the posterior region)
- Implant retained superstructures
- Bars

Milling

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

Soldering / Laser welding

We recommend commercially available solders. Kera[®]-Disc parts should not be soldered with gold or palladium solder. Kera[®]-Disc is also ideally suitable for laser-welding (Kera[®]LA-con from Eisenbacher).

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 minimum 125 µm of Aluminium oxide with 3-4 bar and clean with steam cleaner. Oxide firing is not mandatory but can be done as an option for 5 minutes at 980 °C (cleaning firing). The frame needs to be sandblasted again to remove the present oxide layer thoroughly. In the end the cleaning by steam cleaner is mandatory. If you use a ceramic bonder please consider the instruction for use of the manufacturer.

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.

