Instruction manual

SINTERNIT

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English

Date of publication: 02/05/2022

Intended use:
SINTERNIT is intended for the manufacturing of single crowns, bridges, telescopic crowns and bar constructions. It is suitable for full contour restorations as well as for primary structures of up to 14 units in combination with veneering ceramics.
The blocks are suitable for all milling units, which are able to process presintered SINTERNIT and which have the proper clamping device for the corresponding block.
SINTERNIT is composed of a non-precious metal alloy of Type 5 according to ISO 22674.

⚠ Attention: The non-sintered structure must never come into contact with water or steam.

General information:
The information provided in this instruction manual must be passed on to any person using the products mentioned therein. The products must only be used by qualified personnel. The user is obliged to use the products in accordance with the present instruction manual and with appropriate hygiene measures and to verify on his/her own responsibility whether the products are suitable for the individual patient situation. The user will be held fully responsible for the appropriate and correct use of the products. Zirkonzahn assumes no liability for incorrect results in form of direct or indirect damages or any other damages that occur from the use and/or the processing of the products. Any claim for damages (including punitive damages), is limited to the commercial value of the Zirkonzahn products. Independently of this, the user is obliged to report all serious incidents that occur in connection with the products to the competent authority and to Zirkonzahn.

Contraindications:
Should intolerance to the product be suspected, use it only after an allergy screening test has been performed with issue of medical statement of non-allergic conditions.

Work steps:
1) Fix the metal disc in the clamping device. Tighten the screws of the clamping claws to a tightening torque of 0.6 Nm and check for tightness.
2) Start the milling process. SINTERNIT is milled dry and under extraction.
   ⚠ Attention: In case of prior wet processing, clean and dry the milling unit before processing SINTERNIT!
3) After milling, check the structure visually for material fractures or cracks. Only flawless structures must be used for dental restorations. In case of unsatisfactory results, milling burs need to be checked and, if necessary, replaced, the machine needs to be cleaned and recalibrated.
4) Separate the structure with a cross-toothed hard-metal milling bur or a diamand bur from the blank (dry and under extraction).
5) Finish the structure a with cross-toothed hard-metal milling bur, air blow it and clean it with a brush.
6) For sintering the structure, follow the instructions “Working with SINTERNIT”. The heating phase of the furnace takes approx. 6.5 hours, the cooling phase approx. 1.5 hours. The material’s final sintering temperature is 1230 °C.
7) Remove sintered structures from the furnace at room temperature.
8) Check the structure on the working model for seat and margin fi t. Work the structure with a cross-toothed hard-metal milling bur if necessary.
9) Sandblast the structure using 110 µ aluminium oxide at a pressure of 2 – 4 bar.
10) After elaboration, carry out an oxide fi ring at a temperature of 980 °C without vacuum. Holding time 8 min.
11) Clean the structure with water, steam-clean.
12) The structure is now ready for layering with metal ceramics of all common manufacturers.
    ⚠ Attention: Observe CTE value and follow instructions of the respective ceramics producers!
13) Polish metal margins and optionally full contour crowns with polishers/brushes.
14) Use commercially available dental cements for insertion.
    ⚠ Attention: Follow the instructions of the respective cement producer.
    ⚠ Minimum thickness: 0.4 mm.
    The connector cross-section should not be below 8 mm² in the anterior region and 11 mm² in the posterior region. Bridge frames can have a maximum of two connected intermediate units in the anterior and posterior region.

Technical Data:

CTE value	14.2-14.5 * 10^{-6} K^{-1}
E-modulus	>180 GPa
Firing temperature	Max. 980 °C

Safety instructions:
Please observe product-specific safety data sheet!

Storage and stability:
Store in a dry place at room temperature. Do not expose to heavy shocks or vibrations. Blocks must not come into contact with liquids. Protect them from dirt.
Avoid any exposure to humidity. Avoid the formation and deposition of dust. Ensure adequate ventilation.

US Federal law restricts these products to sale by or on the order of a licensed practitioner in the dental sector.

Information:
Manufacturer: Zirkonzahn srl – Via An der Ahr 7 – 39030 Gais – Italy – www.zirkonzahn.com
Emergency Phone: +39 0474 066 660 (Mon. – Fri. 8 am – 6 pm)

N.B.: All medical devices and all products with open packaging are non-returnable.

Legend

Explanation of symbols used

Catalogue number


Consult instructions for use

Batch code


Date of production


Manufacturer

To be sold by or on the order of a licensed dentist