



## SINTERMETALL

*Dimensionally stable material milled in your own laboratory*

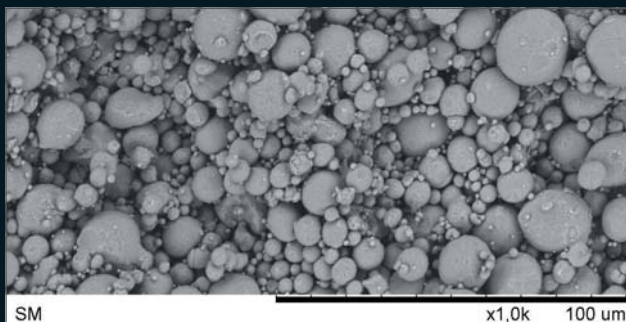
## SINTERMETALL

The cobalt-chromium blanks (non-precious metal) are highly pre-compressed and slightly sintered. This permits to mill all dental restorations using a pre-sintered material. Thanks to the shrinkage factor of just 7%, the material's torsional stability during the sintering process is very high. Like this, all milled dental restorations (full-arch bridges, single crowns, metal frameworks, telescopic crowns, bars, attachments) can be sintered with a total lack of stresses.

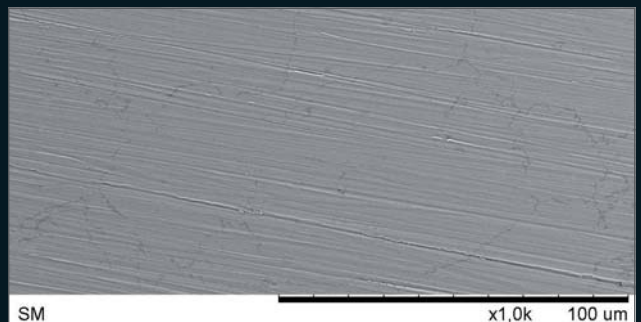
### *Properties at a glance:*

- High performance cobalt-chromium alloy
- Neither distortions nor stresses in the metal frameworks
- No impurities in the metal structure
- High tensile strength thanks to the material's compact structure and smooth surfaces (Cobalt-based dental alloy, Type 5, according to DIN EN ISO 22674)
- High edge stability
- The CAD/CAM system used does not need to be upgraded for the material elaboration
- Oxygen-free sintering under high vacuum with one of the following furnaces: the Zirkonofen 700 Ultra-Vakuum, equipped with a special sintering adapter (no additional furnace is required), or the Sinterofen 300S
- Sintering without shielding gas; no residual oxides
- Due to perfect temperature distribution in the furnace, it is possible to manufacture bridges with up to 14 units
- Milling time per unit depending on milling unit: ca. 15 minutes
- Electroplating to reduce the grey value of zirconia secondary structures
- Faster than the casting technique

*Surface image made with a scanning electron microscope*

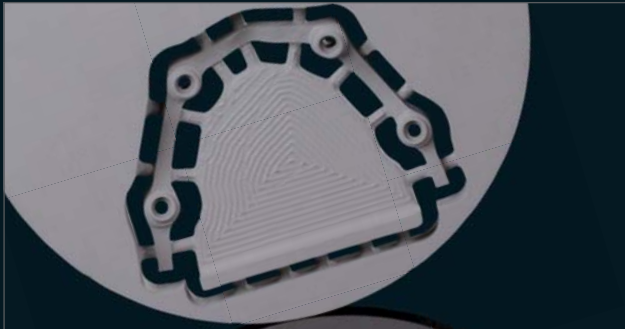


*Slightly sintered*



*Densely sintered*

# PERFECT STABILITY



*Bar milled in a Sintermetall 95H10 blank*



*Stable substructure for zirconia, resin and ceramics.  
It can be electroplated*

# SINTERING WITHOUT RESIDUAL OXIDATION



Combustion chamber of the Zirkonofen 700 Ultra-Vakuum sintering furnace for up to 120 zirconia and 25 Sintermetall elements.



Combustion chamber of the Sinterofen 300S sintering furnace for approximately 50 Sintermetall elements; it is possible to sinter 2 full-arch bridges or 6 bars in one process.

## ACCESSORIES

### Zirkonofen 700 Ultra-Vakuum sintering furnace



**Sintering Tray Sintermetall (ZBAC2186)**

Tray for the sintering of Sintermetall structures with up to 5 elements in the Zirkonofen 700 Ultra-Vakuum sintering furnace; total capacity: 25 elements



**Sintering Holder (ZBAC2188)**

Suspension device for sintering Sintermetall jobs with at least 6 elements fixed with the Bar Carrier and the Bar Carrier XL

### Sinterofen 300S sintering furnace



**Sintering Tray Sintermetall XL 300S (ZBAC2187)**

Tray for sintering Sintermetall jobs with up to 5 elements in the Sinterofen 300S sintering furnace. Total capacity: 50 elements



**Sintering Holder XL 300S (ZBAC2189)**

Suspension device for sintering Sintermetall jobs with at least 6 elements, fixed with the Bar Carrier and the Bar Carrier XL



**Bar Carrier (ZBAC3801)/ Bar Carrier XL (ZBAC3811)**

Fixing device for 1 or up to 3 bars in the Sintering Holder and Sintering Holder XL 300S



**Sintering Platform XL (ZBAC3871)**

To equip easily the Sintering Holder XL 300S and to arrange well all required sintering components



**Sintering Powder Supreme (ZBAC3831)**

Sintering powder for sintering Sintermetall without residual oxides



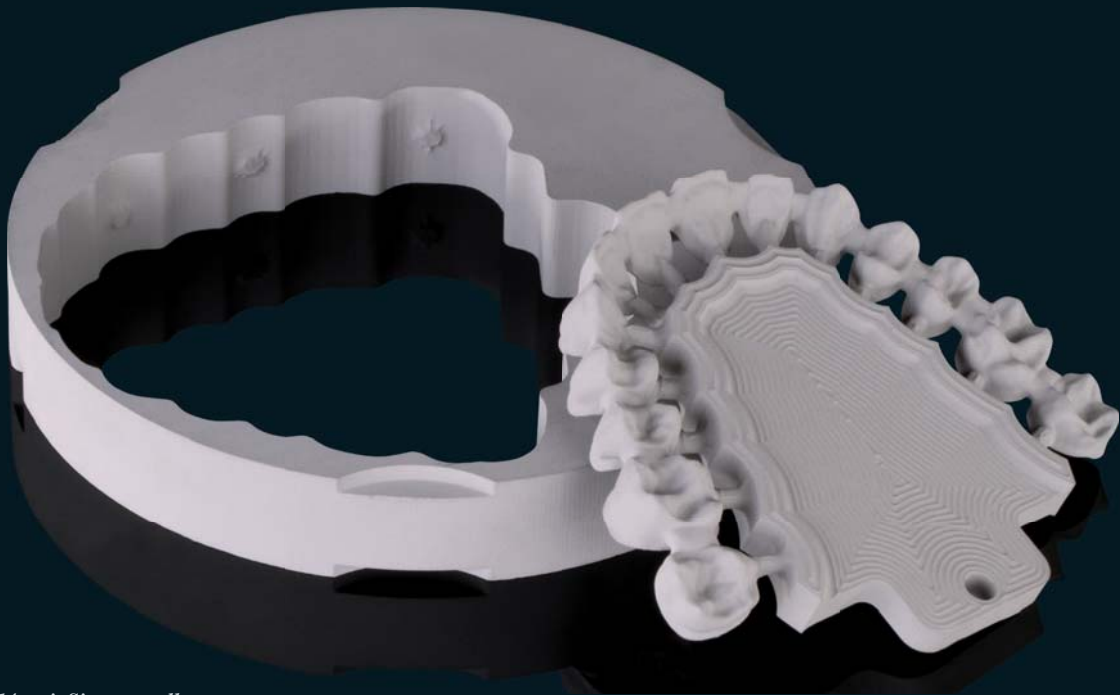
**Insert Tray Supreme Extended (ZBAC3841)**

To place small Sintermetall structures and Sintering Powder Supreme in the Sintering Holder XL 300S; small and large structures can be sintered in one process

# THE MATERIAL

*Deformation resistant sinter metal for the manufacture of structures ranging from single crowns to 14-unit bridges, metal frameworks, telescopic crowns, bars, dowels and attachments in one's own laboratory.*

*Dry processing with all Zirkonzahn milling units (except M1 Abutment milling unit) using CAD/CAM Milling Burs Sintermetall; electroplating as well as veneering with ceramics is possible (consider CTE value).*



*Milled 14-unit Sintermetall structure*

<i>Zirkonzahn Sintermetall blank</i>	<i>Height</i>	<i>Item number</i>
	<b>95H10</b>	<b>MEAD0610</b>
	<b>95H12</b>	<b>MEAD0612</b>
	<b>95H14</b>	<b>MEAD0614</b>
	<b>95H16</b>	<b>MEAD0616</b>
	<b>95H18</b>	<b>MEAD0618</b>
	<b>95H20</b>	<b>MEAD0620</b>
	<b>95H22</b>	<b>MEAD0622</b>
	<b>95H25</b>	<b>MEAD0625</b>
	<b>95H30</b>	<b>MEAD0630</b>

*Use with Sintering Powder Supreme only (ZBAC3831).*

*Material blanks in different heights and diameters (e.g. 98 mm) for the elaboration with systems of other producers are available on request!*

## SINTEROFEN 300S

SINTERING FURNACE FOR SINTERMETALL



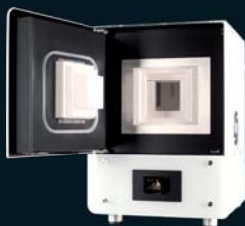
- High vacuum pump for oxygen-free sintering
- Sintering without shielding gas; no residual oxides
- Large combustion chamber for around 50 Sintermetall elements
- With the special Sintering Holder XL 300S it is possible to sinter 2 full-arch bridges or 6 bars in just one sintering cycle
- Automatically controlled cooling
- Modern high quality full glazing
- 4,3" colour touchscreen control panel showing the sintering process and remaining time
- USB port for updates
- Low maintenance, very robust

## HUMAN ZIRCONIUM TECHNOLOGY

Zirkonzahn Worldwide – Tel +39 0474 066 680 – info@zirkonzahn.com – www.zirkonzahn.com

## ZIRKONOFEN 700 ULTRA-VAKUUM

SINTERING FURNACE FOR ZIRCONIA AND SINTERMETALL



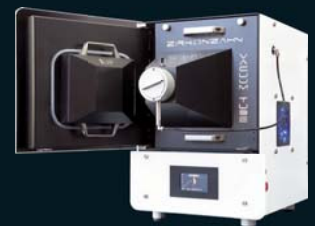
Zirkonofen 700 Ultra-Vakuum sintering furnace

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Sinter Metal Furnace Adapter

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Zirkonofen 700 Ultra-Vakuum with Sinter Metal Furnace Adapter



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