

# CAD/CAM materials.

Premium quality for every requirement.



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The symbol for  
smarter zirconia.



## Ceramic solutions – made by Dentaaurum.

Zirconium oxide is the first choice in materials for highly aesthetic prosthetic restorations due to its many possible uses, its bio-compatibility and its visual color matching ability. There are six different ceraMotion® Z blanks for all zirconia-based indications, each offering reliability in shading and processing.

State-of-the-art materials technology within a logical overall concept makes ceraMotion® Z the smart choice for natural all-ceramic restorations, created to meet high demands.



Photo: © Christian Ferrari®

|                                                                                     | Zirconium oxide type                                                                                                                                                                                                                        | Flexural strength (biaxial) | Sintering temperature | Translucency* |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------|---------------|
|    | <b>ceraMotion® Z blank Hybrid</b> <ul style="list-style-type: none"> <li>■ strong</li> <li>■ ultra-highly translucent</li> <li>■ multi-shaded</li> </ul>   | 1300 → 1020 MPa             | 1480 °C / 2696 °F     | 43 % - 47 %   |
|    | <b>ceraMotion® Z blank Cubic Multishade</b> <ul style="list-style-type: none"> <li>■ ultra-highly translucent</li> <li>■ multi-shaded</li> </ul>           | 600 MPa                     | 1450 °C / 2642 °F     | 49 %          |
|    | <b>ceraMotion® Z blank HT Multishade</b> <ul style="list-style-type: none"> <li>■ strong</li> <li>■ highly translucent</li> <li>■ multi-shaded</li> </ul>  | 1100 MPa                    | 1530 °C / 2786 °F     | 43 %          |
|    | <b>ceraMotion® Z blank HT Shade</b> <ul style="list-style-type: none"> <li>■ strong</li> <li>■ highly translucent</li> <li>■ shaded</li> </ul>             | 1100 MPa                    | 1530 °C / 2786 °F     | 43 %          |
|   | <b>ceraMotion® Z blank HT White</b> <ul style="list-style-type: none"> <li>■ strong</li> <li>■ highly translucent</li> </ul>                             | 1200 MPa                    | 1530 °C / 2786 °F     | 43 %          |
|  | <b>ceraMotion® Z blank White</b> <ul style="list-style-type: none"> <li>■ strong</li> <li>■ proven</li> </ul>                                            | 1200 MPa                    | 1530 °C / 2786 °F     | 39 %          |

\* Specimen 1.0 mm, white  
 \*\* Vita is a registered trademark of Vita Zahnfabrik H. Rauter GmbH & Co. KG, 79704 Bad Säckingen, Germany

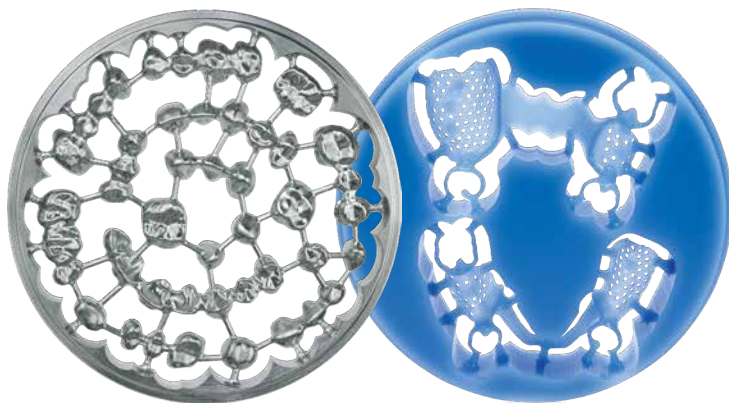
## Premium quality for every requirement.

remanium®   
*star MD III*

rematitan®   
*Ti2+Ti5*

STAR  WAX

remanium® und rematitan® – two clinically-proven brands from Dentaurum for the most commonly used milling machines. They are complemented by two wax blanks especially for semi-digital technology.



|                                                                                     | Blank type                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <p><b>remanium® star MD II blank</b></p> <p>High-tech CoCr bonding alloy for CAD/CAM milling systems. A distinguishing feature of remanium® star MD II is its homogeneous composition. This guarantees strength (type 3) and ductility which are suitable for machining (subtractive manufacturing).</p> <p>Good laser weldability and proven good ceramic bonding are further properties which provide the basis for the high degree of safety potential.</p>                                            |
|    | <p><b>rematitan® blank Ti2</b></p> <p>Titanium of low hardness.</p> <p>rematitan® blank Ti2 for all applications in crown and bridge work. Highly biocompatible and gentle on the tools during milling. Ideal for ceramic veneering using veneering ceramics suitable for titanium such as ceraMotion® Ti</p>                                                                                                                                                                                             |
|   | <p><b>rematitan® blank Ti5</b></p> <p>For high demands.</p> <p>rematitan® blank Ti5: Titanium alloy (Ti 6AL 4V) with increased mechanical strength. Particularly suitable for long-span, delicate framework structures and for implant work. Can be veneered and offers secure ceramic bond.</p>                                                                                                                                                                                                          |
|  | <p><b>StarWax blank blue and StarWax blank grey</b></p> <p>Wax milling made easy.</p> <p>Wax blanks with excellent milling properties for the manufacture of crowns and bridges or partial dentures using the CAD/Vest process. Can be processed on all milling machines suitable for milling blanks with standard dimensions.</p> <p>StarWax Blank blue is ideal for CAD/Vest partial dentures to be cast.</p> <p>StarWax Blank grey is ideal for CAD/Vest crowns and bridges to be pressed or cast.</p> |

remanium®  
*star powder* 



remanium® star powder and rematitan® powder are clinically-proven non-precious metal alloys for the manufacture of crowns, bridges and partial dentures by means of additive laser melting. They are compatible with all market-leading laser melting machines.



|                                                                                    | Powder type                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <p><b>remanium® star powder, 10-30 µm</b></p> <ul style="list-style-type: none"> <li>■ ideal grain size</li> <li>■ particularly suitable for the manufacture of fixed and removable restorations, appliances and metal-ceramic frameworks</li> <li>■ new heat treatment, time and resource-saving</li> <li>■ good ceramic bond</li> <li>■ type 5 alloy</li> </ul>                 |
|   | <p><b>rematitan® powder, 15-45 µm</b></p> <ul style="list-style-type: none"> <li>■ alloy based on titanium, thereby an alternative to CoCr alloys</li> <li>■ particularly suitable for the manufacture of fixed and removable restorations, appliances and metal-ceramic frameworks</li> <li>■ validated for all common laser melting machines</li> <li>■ type 4 alloy</li> </ul> |
|  |                                                                                                                                                                                                                                                                                                                                                                                   |

## Zirconium oxide blanks



### ceraMotion® Z blank Hybrid

ø 98.3 mm

Multi-shaded and multi-layered zirconium oxide made of two different zirconium oxide materials for all restorations in the anterior and posterior area. Suitable for all open CAD/CAM systems.

#### Advantages and indication:

- multiple indications due to high strength in the dentine area
- reliable reproducibility for high-level aesthetics
- natural, smooth shade transition from cervical to incisal
- available in the 9 most popular V-shades and 2 bleach shades
- particularly suitable for monolithic restorations
- excellent machinability
- translucency 43 % to 47 % (non-shaded, 1 mm)
- optimum finishing with ceraMotion® One Touch and veneering with ceraMotion® Zr

Sintering temperature: 1480 °C / 2696 °F

Norm: DIN EN ISO (Type II, class 5), DIN EN ISO 9693

| Color    | REF (14 mm)       | REF (18 mm)       | REF (22 mm)       | Quantity |
|----------|-------------------|-------------------|-------------------|----------|
| bleach 1 | <b>272-300-14</b> | <b>272-300-18</b> | <b>272-300-22</b> | 1 piece  |
| bleach 2 | <b>272-400-14</b> | <b>272-400-18</b> | <b>272-400-22</b> | 1 piece  |
| A1       | <b>272-411-14</b> | <b>272-411-18</b> | <b>272-411-22</b> | 1 piece  |
| A2       | <b>272-412-14</b> | <b>272-412-18</b> | <b>272-412-22</b> | 1 piece  |
| A3       | <b>272-413-14</b> | <b>272-413-18</b> | <b>272-413-22</b> | 1 piece  |
| A3.5     | <b>272-415-14</b> | <b>272-415-18</b> | <b>272-415-22</b> | 1 piece  |
| A4       | <b>272-414-14</b> | <b>272-414-18</b> | <b>272-414-22</b> | 1 piece  |
| B1       | <b>272-421-14</b> | <b>272-421-18</b> | <b>272-421-22</b> | 1 piece  |
| B2       | <b>272-422-14</b> | <b>272-422-18</b> | <b>272-422-22</b> | 1 piece  |
| C2       | <b>272-432-14</b> | <b>272-432-18</b> | <b>272-432-22</b> | 1 piece  |

CE 0483

#### Technical data

|                  |                                         |
|------------------|-----------------------------------------|
| Material         | ZrO <sub>2</sub> 3Y-TZP → 4Y-PSZ        |
| Bending strength | 1300 → 1020 MPA                         |
| Density          | > 6.04 g/cm <sup>3</sup>                |
| Radioactivity    | < 0.02 Bq/g                             |
| Solubility       | < 20 µg/cm <sup>2</sup>                 |
| CTE              | 10.5 · 10 <sup>-6</sup> K <sup>-1</sup> |

The values listed were measured on test samples and are typical for the material. The product properties may, however, deviate from these values depending on the component design and the forming process.

### ceraMotion® Z blank Cubic Multishade

ø 98.3 mm

Multi-shaded, pre-shaded and ultra-highly translucent zirconium oxide for inlays, veneers, single crowns and 3-unit bridges. Suitable for all open CAD/CAM systems.

#### Advantages and indication:

- reliable reproducibility for high-level aesthetics
- natural, smooth shade transition from cervical to incisal
- available in the 9 most popular V-shades
- particularly suitable for inlays, onlays, monolithic crowns and 3-unit bridges
- excellent machinability
- translucency 49 % (non-shaded, 1 mm)
- optimum finishing with ceraMotion® One Touch and veneering with ceraMotion® Zr

Sintering temperature: 1450 °C / 2642 °F

Norm: DIN EN ISO 6872 (Type II, class 4), DIN EN ISO 9693



| Color | REF (14 mm) | REF (18 mm) | REF (22 mm) | Quantity |
|-------|-------------|-------------|-------------|----------|
| A1    | 272-311-14  | 272-311-18  | 272-311-22  | 1 piece  |
| A2    | 272-312-14  | 272-312-18  | 272-312-22  | 1 piece  |
| A3    | 272-313-14  | 272-313-18  | 272-313-22  | 1 piece  |
| A3.5  | 272-315-14  | 272-315-18  | 272-315-22  | 1 piece  |
| A4    | 272-314-14  | 272-314-18  | 272-314-22  | 1 piece  |
| B1    | 272-321-14  | 272-321-18  | 272-321-22  | 1 piece  |
| B2    | 272-322-14  | 272-322-18  | 272-322-22  | 1 piece  |
| C2    | 272-332-14  | 272-332-18  | 272-332-22  | 1 piece  |
| D2    | 272-333-14  | 272-333-18  | 272-333-22  | 1 piece  |

CE 0483

#### Technical data

|                  |                                         |
|------------------|-----------------------------------------|
| Material         | ZrO <sub>2</sub> 5Y-PSZ                 |
| Bending strength | 600 MPa                                 |
| Density          | > 6.04 g/cm <sup>3</sup>                |
| Radioactivity    | < 0.02 Bq/g                             |
| Solubility       | < 100 µg/cm <sup>2</sup>                |
| CTE              | 10.5 · 10 <sup>-6</sup> K <sup>-1</sup> |

The values listed were measured on test samples and are typical for the material. The product properties may, however, deviate from these values depending on the component design and the forming process.



## Zirconium oxide blanks



### ceraMotion® Z blank HT Multishade

ø 98.3 mm

Multi-shaded, pre-shaded and highly translucent zirconium oxide for all restorations in the anterior and posterior area from the single crown to multi-element restorations or implant substructures.

Suitable for all open CAD/CAM systems.

#### Advantages and indication:

- multiple indications due to high strength
- highly efficient (no preshading required)
- for high aesthetic demands
- natural, smooth shade transition from cervical to incisal
- reliable reproducibility of the classic V-shades
- particularly suitable for monolithic crowns and bridges
- excellent machinability
- translucency 43 % (non-shaded, 1 mm)
- optimum finishing with ceraMotion® One Touch and veneering with ceraMotion® Zr

Sintering temperature: 1530 °C / 2786 °F

Norm: DIN EN ISO (Type II, class 5), DIN EN ISO 9693

| Color | REF (14 mm) | REF (18 mm) | REF (22 mm) | REF (25 mm) | Quantity |
|-------|-------------|-------------|-------------|-------------|----------|
| A1    | 272-211-14  | 272-211-18  | 272-211-22  | 272-211-25  | 1 piece  |
| A2    | 272-212-14  | 272-212-18  | 272-212-22  | 272-212-25  | 1 piece  |
| A3    | 272-213-14  | 272-213-18  | 272-213-22  | 272-213-25  | 1 piece  |
| A3.5  | 272-215-14  | 272-215-18  | 272-215-22  | 272-215-25  | 1 piece  |
| A4    | 272-214-14  | 272-214-18  | 272-214-22  | 272-214-25  | 1 piece  |
| B1    | 272-221-14  | 272-221-18  | 272-221-22  | 272-221-25  | 1 piece  |
| B2    | 272-222-14  | 272-222-18  | 272-222-22  | 272-222-25  | 1 piece  |
| C2    | 272-232-14  | 272-232-18  | 272-232-22  | 272-232-25  | 1 piece  |
| D2    | 272-233-14  | 272-233-18  | 272-233-22  | 272-233-25  | 1 piece  |

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#### Technical data

|                  |                                         |
|------------------|-----------------------------------------|
| Material         | ZrO <sub>2</sub> 3Y-TZP                 |
| Bending strength | 1100 MPa                                |
| Density          | > 6.08 g/cm <sup>3</sup>                |
| Radioactivity    | < 0.02 Bq/g                             |
| Solubility       | < 10 µg/cm <sup>2</sup>                 |
| CTE              | 10.5 · 10 <sup>-6</sup> K <sup>-1</sup> |

The values listed were measured on test samples and are typical for the material. The product properties may, however, deviate from these values depending on the component design and the forming process.

### ceraMotion® Z blank HT Shade

ø 98.3 mm

Monochrome, pre-shaded and highly translucent zirconium oxide for all restorations in the anterior and posterior area, from the single crown to multi-element restorations or implant substructures.

Suitable for all open CAD/CAM systems.

#### Advantages and indication:

- safety due to high strength
- highly efficient (no preshading required)
- guarantees consistent shade results thanks to preshaded blanks
- reliable reproducibility of classic V-shades
- particularly suitable for monolithic crowns and bridges
- excellent machinability
- translucency 43 % (non-shaded, 1 mm)
- optimum finishing with ceraMotion® One Touch and veneering with ceraMotion® Zr

Sintering temperature: 1530 °C / 2786 °F

Norm: DIN EN ISO (Type II, class 5), DIN EN ISO 9693



| Color | REF (14 mm) | REF (18 mm) | REF (22 mm) | REF (25 mm) | Quantity |
|-------|-------------|-------------|-------------|-------------|----------|
| A1    | 272-111-14  | 272-111-18  | 272-111-22  | 272-111-25  | 1 piece  |
| A2    | 272-112-14  | 272-112-18  | 272-112-22  | 272-112-25  | 1 piece  |
| A3    | 272-113-14  | 272-113-18  | 272-113-22  | 272-113-25  | 1 piece  |
| A3.5  | 272-115-14  | 272-115-18  | 272-115-22  | 272-115-25  | 1 piece  |
| A4    | 272-114-14  | 272-114-18  | 272-114-22  | 272-114-25  | 1 piece  |
| B1    | 272-121-14  | 272-121-18  | 272-121-22  | 272-121-25  | 1 piece  |
| B2    | 272-122-14  | 272-122-18  | 272-122-22  | 272-122-25  | 1 piece  |
| B3    | 272-123-14  | 272-123-18  | 272-123-22  | 272-123-25  | 1 piece  |
| B4    | 272-124-14  | 272-124-18  | 272-124-22  | 272-124-25  | 1 piece  |
| C1    | 272-131-14  | 272-131-18  | 272-131-22  | 272-131-25  | 1 piece  |
| C2    | 272-132-14  | 272-132-18  | 272-132-22  | 272-132-25  | 1 piece  |
| C3    | 272-133-14  | 272-133-18  | 272-133-22  | 272-133-25  | 1 piece  |
| C4    | 272-134-14  | 272-134-18  | 272-134-22  | 272-134-25  | 1 piece  |
| D2    | 272-142-14  | 272-142-18  | 272-142-22  | 272-142-25  | 1 piece  |
| D3    | 272-143-14  | 272-143-18  | 272-143-22  | 272-143-25  | 1 piece  |
| D4    | 272-144-14  | 272-144-18  | 272-144-22  | 272-144-25  | 1 piece  |

CE 0483

#### Technical data

|                  |                                         |
|------------------|-----------------------------------------|
| Material         | ZrO <sub>2</sub> 3Y-TZP                 |
| Bending strength | 1100 MPa                                |
| Density          | > 6,08 g/cm <sup>3</sup>                |
| Radioactivity    | < 0.02 Bq/g                             |
| Solubility       | < 10 µg/cm <sup>2</sup>                 |
| CTE              | 10.5 · 10 <sup>-6</sup> K <sup>-1</sup> |

The values listed were measured on test samples and are typical for the material. The product properties may, however, deviate from these values depending on the component design and the forming process.

## Zirconium oxide blanks



### ceraMotion® Z blank HT White

ø 98.3 mm

Highly translucent zirconium oxide for all restorations in the anterior and posterior area, from the single crown to multi-element restorations or implant substructures. Suitable for all open CAD/CAM systems.

#### Advantages and indications:

- safety due to high strength
- aesthetic restorations possible due to reduced translucency
- suitable for shading
- excellent machinability
- translucency 43 % (non-shaded, 1 mm)
- optimum finishing / veneering with ceraMotion® Zr

Sintering temperature: 1530 °C / 2786 °F

Norm: DIN EN ISO (Type II, class 5), DIN EN ISO 9693

| Thickness | Color | REF               | Quantity |
|-----------|-------|-------------------|----------|
| 14 mm     | white | <b>272-094-14</b> | 1 piece  |
| 18 mm     | white | <b>272-094-18</b> | 1 piece  |
| 22 mm     | white | <b>272-094-22</b> | 1 piece  |
| 25 mm     | white | <b>272-094-25</b> | 1 piece  |

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#### Technical data

|                  |                                         |
|------------------|-----------------------------------------|
| Material         | ZrO <sub>2</sub> 3Y-TZP                 |
| Bending strength | 1200 MPa                                |
| Density          | > 6.06 g/cm <sup>3</sup>                |
| Radioactivity    | < 0.02 Bq/g                             |
| Solubility       | < 10 µg/cm <sup>2</sup>                 |
| CTE              | 10.5 · 10 <sup>-6</sup> K <sup>-1</sup> |

The values listed were measured on test samples and are typical for the material. The product properties may, however, deviate from these values depending on the component design and the forming process.

**ceraMotion® Z blank White**

ø 98.3 mm

High-performance zirconium oxide for all restorations in the anterior and posterior area, multi-element restorations and stable implant substructures. Suitable for all open CAD/CAM systems.

**Advantages and indications:**

- safety due to high strength
- stump and abutment can be covered due to reduced translucency
- suitable for shading
- excellent machinability
- translucency 39 % (non-shaded, 1 mm)
- optimum finishing / veneering with ceraMotion® Zr

Sintering temperature: 1530 °C / 2786 °F

Norm: DIN EN ISO (Type II, class 5), DIN EN ISO 9693



| Thickness | Color | REF               | Quantity |
|-----------|-------|-------------------|----------|
| 14 mm     | white | <b>272-098-14</b> | 1 piece  |
| 18 mm     | white | <b>272-098-18</b> | 1 piece  |
| 22 mm     | white | <b>272-098-22</b> | 1 piece  |
| 25 mm     | white | <b>272-098-25</b> | 1 piece  |

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**Technical data**

|                  |                                         |
|------------------|-----------------------------------------|
| Material         | ZrO <sub>2</sub> 3Y-TZP-A               |
| Bending strength | 1200 MPa                                |
| Density          | > 6.06 g/cm <sup>3</sup>                |
| Radioactivity    | < 0.02 Bq/g                             |
| Solubility       | < 10 µg/cm <sup>2</sup>                 |
| CTE              | 10.5 · 10 <sup>-6</sup> K <sup>-1</sup> |

The values listed were measured on test samples and are typical for the material. The product properties may, however, deviate from these values depending on the component design and the forming process.

## CoCr blanks



### remanium® star MD II blank

ø 98.4 mm

Proven CoCr bonding alloy for CAD/CAM milling systems. Optimized casting structure in implant quality.

#### Advantages:

- proven remanium® star composition
- certified and time-tested base material for all applications in crown and bridge work
- ductility and strength Type 3, DIN EN ISO 22674 suitable for machining
- ideal for ceramic veneering using the conventional CTE range
- highly suitable for secondary parts
- excellent laser weldability

**Indication:** for all constructions manufactured using milling technique such as crowns, bridges, supra-structures, ceramic bonding with suitable ceramics (e.g. ceraMotion® Me)

Norm: DIN EN ISO 9693, DIN EN ISO 22674 (Type 3)

| Thickness | Border  | REF               | Quantity |
|-----------|---------|-------------------|----------|
| 8 mm      | without | <b>102-750-01</b> | 1 piece  |
| 10 mm     | without | <b>102-751-01</b> | 1 piece  |
| 12 mm     | 10 mm   | <b>102-752-01</b> | 1 piece  |
| 13.5 mm   | 10 mm   | <b>102-753-01</b> | 1 piece  |
| 15 mm     | 10 mm   | <b>102-754-01</b> | 1 piece  |
| 18 mm     | 10 mm   | <b>102-755-01</b> | 1 piece  |
| 20 mm     | 10 mm   | <b>102-756-01</b> | 1 piece  |
| 25 mm     | 10 mm   | <b>102-757-01</b> | 1 piece  |

CE 0483

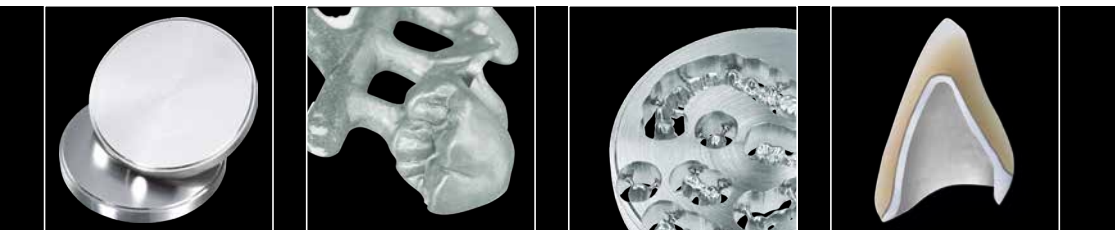
#### Technical data

|                                        |                                      |
|----------------------------------------|--------------------------------------|
| 0.2% Yield strength $R_{p0.2}$         | 320 MPa                              |
| Tensile strength $R_m$                 | 506 MPa                              |
| Hardness                               | 281 HV 10                            |
| Elongation $A_5$                       | 5.9 %                                |
| Modulus of elasticity E                | 202 GPa                              |
| Density                                | 8.5 g/cm <sup>3</sup>                |
| CTE 25 °C - 500 °C /<br>77 °F - 932 °F | $14.1 \times 10^{-6} \text{ K}^{-1}$ |
| Solidus temperature                    | 1320 °C / 2408 °F                    |
| Liquidus temperature                   | 1420 °C / 2588 °F                    |

#### Composition (percentage by mass)

| Co   | Cr   | W   | Si  |
|------|------|-----|-----|
| 60.5 | 28.0 | 9.0 | 1.5 |

Additional elements < 1 %: Fe, Mn, N, Nb



### rematitan® blank Ti2

Titanium grade 2

Pure titanium blank for all applications in crown and bridge work.

Highly biocompatible and gentle on the tools during milling.

#### Product advantages:

- high level of biocompatibility.
- ideal for ceramic veneering using bonding ceramics suitable for titanium such as ceraMotion® Ti
- high degree of corrosion resistance
- good milling properties due to low hardness

**Indication:** for all constructions manufactured using milling technique such as crowns, bridges, supra-structures, ceramic bonding with suitable ceramics

Norm: DIN EN ISO 9693, DIN EN ISO 22674 (Type 4), ISO 5832-2



| Thickness | Border  | REF               | Quantity |
|-----------|---------|-------------------|----------|
| 10 mm     | without | <b>100-202-10</b> | 1 piece  |
| 12 mm     | 10 mm   | <b>100-202-12</b> | 1 piece  |
| 15 mm     | 10 mm   | <b>100-202-15</b> | 1 piece  |
| 20 mm     | 10 mm   | <b>100-202-20</b> | 1 piece  |

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#### Technical data

|                                        |                                     |
|----------------------------------------|-------------------------------------|
| 0.2% Yield strength $R_{p0.2}$         | 380 MPa                             |
| Tensile strength $R_m$                 | 505 MPa                             |
| Hardness                               | 180 HV 10                           |
| Elongation $A_5$                       | 24 %                                |
| Modulus of elasticity E                | 120 GPa                             |
| Density                                | 4.5 g/cm <sup>3</sup>               |
| CTE 25 °C - 500 °C /<br>77 °F - 932 °F | $9.6 \times 10^{-6} \text{ K}^{-1}$ |

#### Composition (percentage by mass)

|      |
|------|
| Ti   |
| 99.3 |

Additional elements < 1 %: Fe, O



## Titanium blanks



### rematitan® blank Ti5

Titanium grade 5

Titanium alloy (Ti Al6 V4) with increased mechanical hardness. Particularly suitable for long-span, delicate framework structures and for implant work.

#### Product advantages:

- high mechanical strength
- high level of biocompatibility in implant quality
- ideal for ceramic veneering using bonding ceramics suitable for titanium such as ceraMotion® Ti
- high degree of corrosion resistance

**Indication:** implant supported supra-structures, for all constructions manufactured using milling technique such as crowns, bridges, supra-structures, ceramic bonding with suitable ceramics

Norm: DIN EN ISO 9693, DIN EN ISO 22674 (Type 4), ISO 5832-3

| Thickness | Border  | REF               | Quantity |
|-----------|---------|-------------------|----------|
| 10 mm     | without | <b>100-205-10</b> | 1 piece  |
| 12 mm     | 10 mm   | <b>100-205-12</b> | 1 piece  |
| 15 mm     | 10 mm   | <b>100-205-15</b> | 1 piece  |
| 20 mm     | 10 mm   | <b>100-205-20</b> | 1 piece  |
| 25 mm     | 10 mm   | <b>100-205-25</b> | 1 piece  |
| 30 mm     | 10 mm   | <b>100-205-30</b> | 1 piece  |

CE 0483

#### Technical data

|                                        |                                         |
|----------------------------------------|-----------------------------------------|
| 0.2% Yield strength $R_{p0.2}$         | 832 MPa                                 |
| Tensile strength $R_m$                 | 908 MPa                                 |
| Hardness                               | 285 HV 10                               |
| Elongation $A_5$                       | 7 %                                     |
| Modulus of elasticity E                | 120 GPa                                 |
| Density                                | 4.3 g/cm <sup>3</sup>                   |
| CTE 25 °C - 500 °C /<br>77 °F - 932 °F | 10.0 x 10 <sup>-6</sup> K <sup>-1</sup> |

#### Composition (percentage by mass)

| Ti   | Al  | V   |
|------|-----|-----|
| 90.0 | 6.0 | 4.0 |

Additional elements < 1 %: Fe, O



**StarWax blank blue**

ø 98.4 mm

StarWax blank blue is ideal for CAD/Vest cast partial dentures to be cast.

**Product advantages:**

- tension-free
- high fracture strength
- accurate fit
- residue-free burnout

**Indication:** wax-ups in crown and bridge technique, stabilizing of wax constructions

| Thickness | Border | Color | REF               | Quantity |
|-----------|--------|-------|-------------------|----------|
| 25,0 mm   | 10 mm  | blue  | <b>120-235-00</b> | 1 piece  |

**Technical data**

|                |                                                 |
|----------------|-------------------------------------------------|
| Dropping point | 100 °C - 130 °C /<br>212 °F - 266 °F            |
| Dichte         | 0.92 g/cm <sup>3</sup> - 0.97 g/cm <sup>3</sup> |

**StarWax blank grey**

ø 98.4 mm

StarWax blank grey is ideal for CAD/Vest crowns and bridges to be pressed or cast.

**Product advantages:**

- residue-free burnout
- high edge strength
- slightly elastic

**Indication:** wax-ups in crown and bridge technique, stabilizing of wax constructions

| Thickness | Border | Color | REF               | Quantity |
|-----------|--------|-------|-------------------|----------|
| 20,0 mm   | 10 mm  | grey  | <b>120-230-00</b> | 1 piece  |

**Technical data**

|                |                                                 |
|----------------|-------------------------------------------------|
| Dropping point | 100 °C - 130 °C /<br>212 °F - 266 °F            |
| Dichte         | 0.92 g/cm <sup>3</sup> - 0.97 g/cm <sup>3</sup> |



## Investment material



### rema® CAD/Vest

Special investment material for semi-digital CAD/Vest technology (3D printing and milling).

#### Product advantages:

- very smooth casting results
- easy devesting
- suitable for partial dentures, crowns and bridges
- several partial dentures can be embedded simultaneously
- flexibility in the preheating stage, conventional and speed
- excellent fit

Norm: DIN EN ISO 15912

Type 1, 2

Class 2

|                        |                                            |
|------------------------|--------------------------------------------|
| Working time           | 6 min - 8 min                              |
| Preheating             | consistent preheating,<br>speed preheating |
| Preheating temperature | 850 °C / 1562 °F                           |
| Compression resistance | 4 MPa                                      |
| Color                  | white                                      |

|                |                    |
|----------------|--------------------|
| REF 105-725-00 | 20 kg (80 x 250 g) |
| REF 105-726-00 | 5 kg               |



### rema® CAD/Vest mixing liquid

Approx. 3000 ml mixing liquid are sufficient for 20 kg investment material.

**Caution:** Mixing liquid is sensitive to frost!  
Please order prior to frost season.

|                |     |
|----------------|-----|
| REF 105-728-00 | 1 l |
|----------------|-----|

### remanium® star powder, 10-30 µm

Time-tested, universal dental alloy in powder form with ideal grain size for the laser melting process.

#### Advantages:

- universal material for common laser melting units
- clinically time-tested dental alloy
- ideal material for crowns and bridges, cast partial dentures and other dental applications
- excellent surfaces and high fitting accuracy

**Indication:** for additive manufacturing based on cobalt.

It is particularly suitable for the manufacture of fixed and removable restorations, appliances and metal-ceramic frameworks, veneerable using an appropriate veneering ceramic for CoCr alloys (e.g. ceraMotion® Me)

Norm: DIN EN ISO 9693, DIN EN ISO 22674 (Type 5)

#### Technical data

|                                        |                                         |
|----------------------------------------|-----------------------------------------|
| 0.2% Yield strength $R_{p0.2}$         | 800 MPa                                 |
| Tensile strength $R_m$                 | 1170 MPa                                |
| Hardness                               | 395 HV 10                               |
| Elongation $A_5$                       | 11 %                                    |
| Modulus of elasticity E                | 230 GPa                                 |
| Density                                | 8.6 g/cm <sup>3</sup>                   |
| CTE 25 °C - 500 °C /<br>77 °F - 932 °F | 14.4 x 10 <sup>-6</sup> K <sup>-1</sup> |
| Solidus temperature                    | 1320 °C / 2408 °F                       |
| Liquidus temperature                   | 1420 °C / 2588 °F                       |

REF 102-620-70

5 kg

CE 0483

#### Composition (percentage by mass)

| Co   | Cr   | W   | Si  |
|------|------|-----|-----|
| 60.5 | 28.0 | 9.0 | 1.5 |

Additional elements < 1 %: Mn, N, Nb



## Powder for laser melting



### rematitan® powder, 15-45 µm

Universal titanium-based dental alloy for processing with laser melting machines.

#### Product advantages:

- compatible with laser melting machines currently on the market
- clinically proven dental alloy
- biocompatible
- suitable for veneering technique

**Indication:** for additive manufacturing based on titanium.

It is particularly suitable for the manufacture of fixed and removable restorations, appliances and metal-ceramic frameworks, veneering using an appropriate veneering ceramic for titanium alloys (e.g. ceraMotion® Ti)

Norm: DIN EN ISO 9693, DIN EN ISO 22674 (Type 4), ISO 5832-3

#### Technical data

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| 0.2% Yield strength $R_{p0.2}$      | 950 MPa                              |
| Tensile strength $R_m$              | 1005 MPa                             |
| Hardness                            | 330 HV 10                            |
| Elongation $A_5$                    | 10 %                                 |
| Modulus of elasticity E             | 130 GPa                              |
| Density                             | 4.4 g/cm <sup>3</sup>                |
| CTE 25 °C - 500 °C / 77 °F - 932 °F | $10.1 \times 10^{-6} \text{ K}^{-1}$ |
| Solidus temperature                 | 1605 °C / 2921 °F                    |
| Liquidus temperature                | 1650 °C / 3002 °F                    |

REF 100-145-00

2.5 kg

CE 0483

#### Composition (percentage by mass)

| Ti   | Al  | V   |
|------|-----|-----|
| 90.0 | 6.0 | 4.0 |

Additional elements < 1 %: Fe, O



**NEW**

