



NON-PRECIOUS METAL POWDER (NPM)

High-quality superalloys for 3D technology for the manufacture of highly complex restorations in mass production using PBF systems.

★ STARBOND EASY POWDER

CoCrW dental alloy powder for dentures manufacturing in a laser melting process. The user benefits from the same outstanding characteristics of our Starbond Easy dental alloy and can thus work in a proven system. Positive processing properties and the alloy components ensures maximum flexibility in ceramic selection and also guarantees excellent veneering.

- › Composition in percent by mass
Co: 61 % Cr: 27.5 % W: 8.5 % Si: 1.6 % C, Fe, Mn: <1 %

TECHNICAL PROPERTIES**:	
Proof stress (Rp0.2)	760 MPa
Ultimate tensile strength	1090 MPa
Elongation	15 %
Elastic modulus	225 GPa
Vickers hardness	425 HV 10
Density	8.5 g/cm ³
Melting range	1310-1410 °C
CTE (25-500 °C)	14.5 x 10 ⁻⁶ K ⁻¹
CTE (25-600 °C)	14.7 x 10 ⁻⁶ K ⁻¹
Laser weldable	Yes
Type (DIN EN ISO 22674)	5



VERSION	QUANTITY	GRAIN Ø	REF
Starbond Easy Powder 30	5000 g	+10/-30 µm	140730
Starbond Easy Powder 30+	5000 g	+10/-70 µm	140731
Starbond Easy Powder 55	5000 g	+10/-55 µm	140755

★ FUSION AM

Fusion AM is a CoCr dental alloy powder with improved properties for the production of dental restorations by laser melting. The dental alloy is a CoCr composition already known on the market and has been redesigned and improved by Scheftner. Due to its composition, the powder is suitable for PBF equipment already on the market, without the need for process and parameter changes. The manufacturing process of the powder ensures the best flowability and consequently the safety of a homogeneous coating.

- › Cobalt-chromium alloy for the production of dental prostheses and dental applications
- › Biocompatible & corrosion-resistant
- › Free from nickel, cadmium, beryllium and lead
- › Indications according to DIN EN ISO 22674, type 5
- › Composition in percent by mass:
Co: 63.9 % Cr: 24.7 % W: 5.4 % Mo: 5.0 % Si: 1.0 % C, Fe, Mn, N: <1 %

TECHNICAL PROPERTIES**:	
Proof stress (Rp0.2)	1210 MPa
Ultimate tensile strength	1440 MPa
Elongation	3 %
Elastic modulus	230 GPa
Vickers hardness	540 HV 10
Density	8.7 g/cm ³
CTE (20-600 °C)	14.4 x 10 ⁻⁶ K ⁻¹
Laser weldable	Yes
Type (DIN EN ISO 22674)	5



VERSION	QUANTITY	GRAIN Ø	REF
Fusion AM	5000 g	+10/-45 µm	137745



★ STARBOND COS POWDER

CoCrWMo dental alloy powder for dentures manufacturing in a laser melting process. Starbond CoS Powder is based on the proven dental bonding alloy Starbond CoS. The user can thus continue to work in a system with the same alloy components and the same composition, as well as the same positive processing characteristics. The manufacturing process of the powder ensures the best possible flowability.

- › No cooling phase required
- › Excellent veneering
- › A CTE of 14.4 permits great flexibility in ceramic selection
- › Biocompatible
- › Corrosion-resistant

TECHNICAL PROPERTIES**:

Proof stress (Rp0.2)	720 - 1130 MPa
Ultimate tensile strength	990 - 1250 MPa
Elongation	2-10 %
Elastic modulus	195 - 200 GPa
Vickers hardness	345 - 490 HV 10
Density	8.8 g/cm ³
Melting range	1305-1400 °C
CTE (25 - 600 °C)	14.4 x 10 ⁻⁶ K ⁻¹
Laser weldable	Yes
Type (DIN EN ISO 22674)	4

- › Free from nickel, cadmium, beryllium and lead
- › Composition in percent by mass
Co: 59 % Cr: 25 % W: 9.5 % Mo: 3.5 % Si: 1 % C, Fe, Mn, N: <1 %

VERSION	QUANTITY	GRAIN Ø	REF
Starbond CoS Powder 16	5000 g	-16 µm	133716
Starbond CoS Powder 30	5000 g	+10/-30 µm	133730
Starbond CoS Powder 45	5000 g	+10/-45 µm	133715
Starbond CoS Powder 55	5000 g	+10/-55 µm	133755

✦ MODELSTAR S POWDER

CoCr-dental alloy powder for dentures manufacturing in a laser melting process. Modelstar S Powder is based on the Modelstar S partial denture alloy. This guarantees the successful production of dentures with a well-proven dental material.

- › Compliant with ASTM F75
- › Composition in percent by mass
Co: 61.5 % Cr: 28.5 % Mo: 6 % C, Fe, Mn, Si: <1 %

TECHNISCHE EIGENSCHAFTEN**:

Proof stress (Rp0.2)	560 MPa
Ultimate tensile strength	960 MPa
Elongation	20 %
Vickers hardness	340 HV 10
Density	8.4 g/cm ³
Melting range	1490-1540 °C
CTE (20-600 °C)	14.4 x 10 ⁻⁶ K ⁻¹
Laser weldable	Yes
Type (DIN EN ISO 22674)	5

VERSION	QUANTITY	GRAIN Ø	REF
Modelstar S Powder 16	5000 g	0-16 µm	132716
Modelstar S Powder 45	5000 g	10-45 µm	132745



★ STARBOND Ti4 POWDER 45

Grade 4-titanium powder for dentures manufacturing in a laser melting process. Starbond Ti4 Powder 45 is biocompatible, with high strength properties and a wide range of indications. Perfectly suitable for the production of bars, crowns, bridges and partial dentures.

- › Compliant with DIN EN ISO 5832-2
- › Composition in percent by mass
Ti: 99 % N, C, H, Fe, O: <1 %

TECHNISCHE EIGENSCHAFTEN**:	
Proof stress (Rp0.2)	520 MPa
Ultimate tensile strength	590 MPa
Elongation	>25 %
Elastic modulus	110 GPa
Vickers hardness	>200 HV 5/30
Density	4.5 g/cm ³
Melting range	1605-1660 °C
CTE (25 - 600 °C)	10.1 x 10 ⁻⁶ K ⁻¹
Laser weldable	Yes
Type (DIN EN ISO 22674)	4

VERSION	QUANTITY	GRAIN Ø	REF
Starbond Ti4 Powder 45	2500 g	+10/-45 µm	135715

★ STARBOND Ti5 POWDER 45

Light metal alloy with high corrosion-resistant. A very high strength and at the same time low weight characterizes this alloy.

- › Composition in percent by mass
Ti: 89 %, Al 6 %, V 4 %, N, C, H, Fe, O: <1 %

TECHNISCHE EIGENSCHAFTEN**:	
Proof stress (Rp0.2)	920 - 1150 MPa
Ultimate tensile strength MPa	1100 - 1300 MPa
Elongation	3 - 10 %
Elastic modulus	110 - 120 GPa
Vickers hardness	320 - 380 HV 5/30
Density	4.5 g/cm ³
Melting range	1600 °C
CTE (25 - 600 °C)	9 x 10 ⁻⁶ K ⁻¹
Type (DIN EN ISO 22674)	4

VERSION	QUANTITY	GRAIN Ø	REF
Starbond Ti5 Powder 45	2500 g	+10/-45 µm	136715

★ TIPLADUR®23 POWDER

- › Composition in percent by mass
Ti: 89.4 %, Al 6.2 %, V 4 %, N, C, H, Fe, O: >0.4 %
- › **ADVANTAGES:**
- › Biocompatible, high strength with low density, corrosion resistant

TECHNICAL PROPERTIES**:	
Proof stress (Rp0.2)	920 - 1150 MPa
Ultimate tensile strength	1100 - 1300 MPa
Elongation	3 - 10 %
Elastic modulus	110 - 120 GPa
Vickers hardness	320 - 380 HV 5/30
Density	4.5 g/cm ³
Melting range	1660 °C

VERSION	QUANTITY	GRAIN Ø	REF
TiplaDur®23 Powder	2500 g	+10/-63 µm	136720





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