

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 and ASTM F67
- Composition in percent by mass:
Ti: 99% N,C,H,Fe,O: <1%

TECHNICAL PROPERTIES**:	
Proof stress (Rp 0.2)	520MPa
Ultimate tensile strength	590MPa
Elongation	25%
Elastic modulus	110GPa
Vickers hardness	>200 HV 5/30
Density	4,5g/cm ³
Melting range	1605-1660°C
CTE (25-500°C)	10,1 x 10 ⁻⁶ K ⁻¹
CTE (25-600°C)	10,3 x 10 ⁻⁶ K ⁻¹
Laser weldable	Yes
Type (DIN EN ISO 22674)	4

VERSION	UNIT	SUITABLE FOR PROCESSING IN THE SYSTEMS	GRAIN Ø	REF
Starbond Ti4 Powder 45	2500g	SLM125* – further systems on request	+10/-45µm	135715

*SLM 125 is a registered trademark of Realizer GmbH // ** Standard values; dependent on specific machine settings // Determined after thermal treatment, 700°C with 2h holding time

STARBOND Ti5 POWDER 45

Light metal alloy with high corrosion resistance. A very high strength and at the same time low weight distinguishes this alloy.

- Compliant with DIN EN ISO 5832-3, ASTM F136 and ASTM F3001
- Composition in percent by mass:
Ti: 89% Al: 6% V: 4% N,C,H,Fe,O: <1%

TECHNICAL PROPERTIES**:	
Proof stress (Rp 0.2)	920 - 1150MPa
Ultimate tensile strength	1100 - 1300MPa
Elongation	3 - 10 %
Elastic modulus	110 - 120 Gpa
Vickers hardness	320 - 380 HV 5/30
Density	4,5g/cm ³
Melting range	1600°C
CTE (25-600°C)	9 x 10 ⁻⁶ K ⁻¹
Laser weldable	Yes
Type (DIN EN ISO 22674)	4

VERSION	UNIT	SUITABLE FOR PROCESSING IN THE SYSTEMS	GRAIN Ø	REF
Starbond Ti5 Powder 45	2500g	SLM125* – further systems on request	+10/-45µm	136715

*SLM 125 is a registered trademark of Realizer GmbH // ** Standard values; dependent on specific machine settings // Determined after thermal treatment



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NON-PRECIOUS METAL POWDER (NPM)

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

SLM* registered trademark of companies.
Realizer GmbH, 91176 Borchten, GER and SLM Solutions Group AG, 23558 Lübeck, GER. Register no.: 309943371



★ 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, depending on ceramics
- › Excellent veneering
- › A CTE of 14.4 permits great flexibility in ceramic selection
- › Biocompatible

TECHNICAL PROPERTIES**:	
Proof stress (Rp 0.2)	720-1130MPa
Ultimate tensile strength	990-1250MPa
Elongation	2-10%
Elastic modulus	195-200GPa
Vickers hardness	345-490 HV 10
Density	8,8g/cm ³
Melting range	1305-1400°C
CTE (20-600°C)	14,4 x 10 ⁻⁶ K ⁻¹
Laser weldable	Yes
Type (DIN EN ISO 22674)	5

- › Extremely corrosion resistance
- › CE certified
- › Composition in percent by mass:
Co: 59% Cr: 25% W: 9,5% Mo: 3,5% Si: 1% C,Fe,Mn,N:<1%

VERSION	UNIT	SUITABLE FOR PROCESSING IN THE SYSTEMS	GRAIN Ø	REF
Starbond CoS Powder 16	5000g	PXS Dental* and PXM Dental*, DMP Dental 100* and ProX DMP 200*	-16µm	133716
Starbond CoS Powder 30	5000g	Lasertec 12*, Arrow Metal Printer*, EOS M 100*, Eosint 270*, Mysint 100*, Mysint 100 RM*, Mysint 100 Dual*, TruPrint 1000*, Orlas Creator*	+10/-30µm	133730
Starbond CoS Powder 45	5000g	Eosint 270*, HintEls 100*, SLM 125 HL*	+10/-45µm	133715
Starbond CoS Powder 55	5000g	Lasertec 12*, Lasertec 30*, SLM 50*, SLM 125*	+10/-55µm	133755

*PXS Dental and PXM Dental are registered trademarks of the company PHENIX Systems // *DMP Dental 100 and ProX DMP 200 Dental are registered trademarks of the company 3D Systems Corp. // *Lasertec is a registered trademark of the company DMG Mori AG // *Arrow Metal Printer is a registered trademark of the company Dentas d.o.o. // *HintEls 100 is a registered trademark of the company Hint-Elis GmbH // *SLM 50, SLM 100 and SLM 125 are registered trademarks of Realizer GmbH // *LasercUSING is a registered trademark of the company ConceptLaser GmbH // *EOSINT M is a registered trademark of the company EOS GmbH // *SLM 125HL is a registered trademark of the company SLM Solutions GmbH // *MYSINT is a registered trademark of the company Sisma SpA // *TruPrint is a registered trademark of the company Trumpf GmbH & Co. KG // ** Standard values; dependent on specific machine settings // Determined after thermal treatment // Simulation of ceramic firing

★ STARBOND EASY POWDER 30

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 (Rp 0.2)	760MPa
Ultimate tensile strength	1090MPa
Elongation	15%
Elastic modulus	225GPa
Vickers hardness	425 HV 10
Density	8,5g/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	UNIT	SUITABLE FOR PROCESSING IN THE SYSTEMS	GRAIN Ø	REF
Starbond Easy Powder 30	5000g	Lasertec 12*, Arrow Metal Printer*, EOS M 100*, MLab cusing*, M1 cusing*, Mysint 100*, Mysint 100 RM*, Mysint 100 Dual*, TruPrint 1000*	+10/-30µm	140730

*Lasertec is a registered trademark of the company DMG Mori AG // *Arrow Metal Printer is a registered trademark of the company Dentas d.o.o. // *EOS M 100 is a registered trademark of the company EOS GmbH // *MLab cusing and M1 cusing are registered trademarks of the company ConceptLaser GmbH // *MYSINT is a registered trademark of the company Sisma SpA // *TruPrint is a registered trademark of the company Trumpf GmbH & Co. KG // ** Standard values; dependent on specific machine settings // Determined after thermal treatment // Simulation of ceramic firing



★ 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 DIN EN ISO 5832-4 and ASTM F75
- › Composition in percent by mass:
Co: 61,5% Cr: 28,5% Mo: 6% C,Fe,Mn,Si: <1%

TECHNICAL PROPERTIES**:	
Proof stress (Rp 0.2)	560MPa
Ultimate tensile strength	960MPa
Elongation	20%
Vickers hardness	340 HV 10
Density	8,4g/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	UNIT	SUITABLE FOR PROCESSING IN THE SYSTEMS	GRAIN Ø	REF
Modelstar S Powder 16	5000g	PXS Dental* and PXM Dental*, DMP Dental 100* and ProX DMP 200*	0-16µm	132165
Modelstar S Powder 45	5000g	on request	10-45µm	132745

*PXS Dental and PXM Dental are registered trademarks of the company PHENIX Systems // *DMP Dental 100 and ProX DMP 200 Dental are registered trademarks of 3D Systems Corp. // ** Standard values; dependent on specific machine settings // Determined after thermal treatment

