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remanium® star powder

Laser melting with the best materials.

DENTAURUM
1886

remanium® star powder.

Dentaurum has years of experience in the field of laser melting, and is therefore the ideal contact for this process in the dental industry.

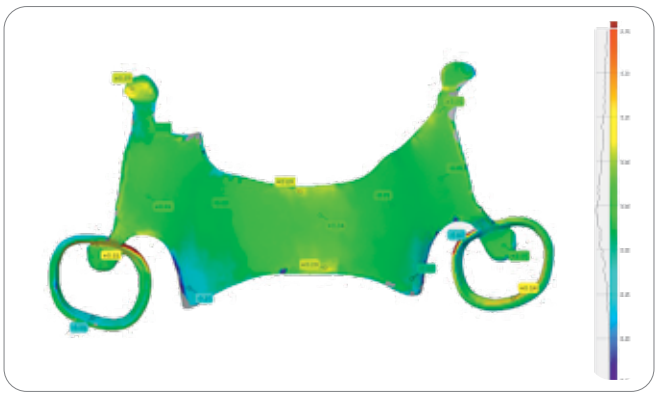
Product advantages.

- Decades of experience in powder metallurgy in dental prosthetics and orthodontics
- Ideal grain size distribution for many laser melting units and areas of application
- Smooth and dense framework surfaces thanks to optimized grain size selection
- Same composition as the proven remanium® alloys for milling and castin
- Perfect suitability for partial dentures with scientifically tested elasticity in clasp constructions
- Modified CTE value ensures very good ceramic bonding for crowns and bridges
- All prosthetic work can be distributed simultaneously on one build plate
- Lowest tensions with specific guidelines for the recommended heat treatment

Simple and efficient heat treatment.

Dental restorations made with remanium® star powder can now be annealed free of tension in approx. 1 hour without shielding gas or special furnaces. This combines the proven product quality with high efficiency and flexibility.

Partial denture fit after heat treatment.



Precision of the heat-treated partial denture in comparison to the original data.

Universal CoCr dental alloy, type 5.

remanium® star powder

Availability

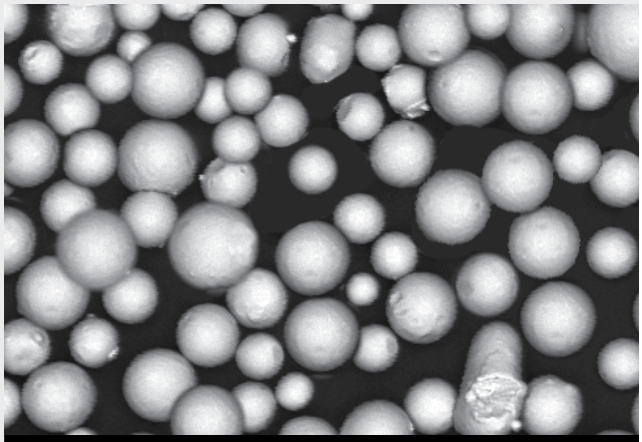
remanium® star powder Grain size 10 µm – 30 µm	**5 kg**	**REF 102-620-70**

Composition (% by mass)

Co	**Cr**	**W**	**Si**
60.5	28.0	9.0	1.5

Technical data

Yield strength $R_{p0.2}$	800 MPa
Tensile strength R_m	1170 MPa
Hardness H	395 HV 10
Elongation at rupture A_5	11 %
Modulus of elasticity E	230 GPa
Density	8.6 g/cm³
CTE (25 °C – 500 °C / 77 °F – 932 °F)	14.4 x 10^{-6} K^{-1}



Spherical powder particles with homogeneous grain size distribution

remanium® star powder for partial dentures.

remanium® star powder is highly suited for the production of clasp-retained dentures, delivering results comparable to cast constructions. This was also scientifically proven by a continuous stress test:

Conclusion of study by the University of Tübingen, Germany:

"...It was possible to show that the retention forces of dental clasps, manufactured by selective laser beam melting, are comparable with the forces of precision-cast clasps..."

Retention forces of one-piece cast clasps over a simulated time in-situ of ten years.

Mutschler, Moritz / Zylla, Isabella-Maria / Geis-Gerstorfer, Jürgen / Edelmann, Karsten / Krause, Joachim / Bünemann, Jens / Pederzani, Nils / Schmitt, Uwe / Mertins, Julia / Lagaris, Alexandros / Ebert, Rolf / Spintzyk, Sebastian

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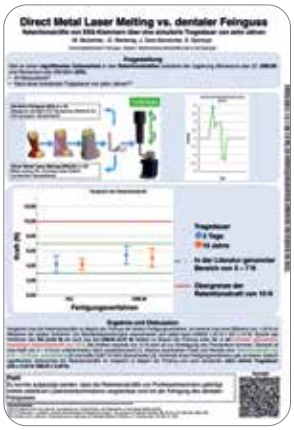

CHAT

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