+ The champions of accurate fit

+ Esteticor Implant® 76
+ Esteticor Implant® 58
+ Esteticor Implant® 32

CENDRES+ MÉTAUX

Dental

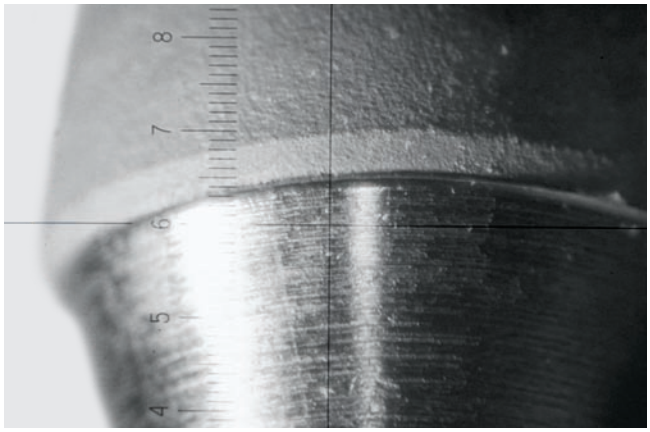
Esteticor Implant® Alloys

The champions of accurate fit

Implant supported frameworks; a challenge?
As a dental technician, you certainly know that accuracy of fit is always a challenge, especially if you create frameworks on implants.
Very often, tensions appear in the framework due to casting and firing procedures and to the alloy's composition. These result in a loss of precision.

With Esteticor Implant®, the new precious metal alloys from Cendres+Métaux, this specific challenge can be mastered easily. Especially developed for restorations on implants, the Esteticor Implant® alloys allow absolute accuracy of fit and offer the highest corrosion resistance at an interesting price/performance ratio.

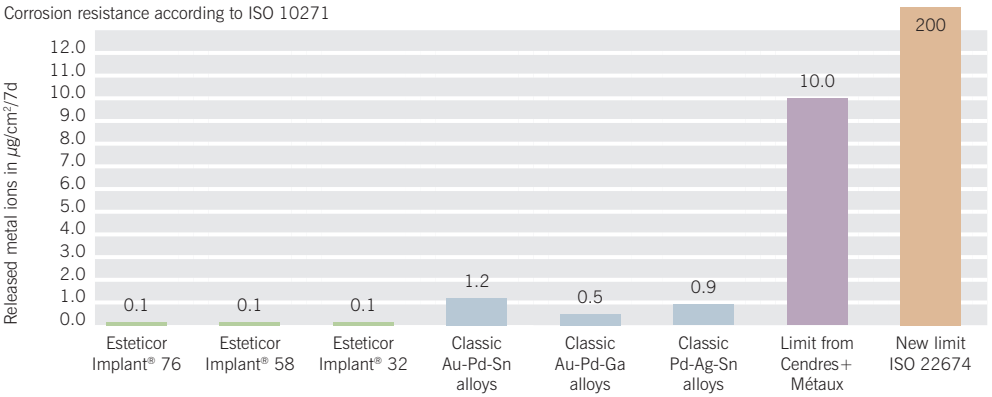
Cytotoxicity and allergic sensitization
Each Esteticor Implant® comes with a certificate established by an independent institute, attesting that the alloy showed no cytotoxic potential and did not cause allergic sensitization.

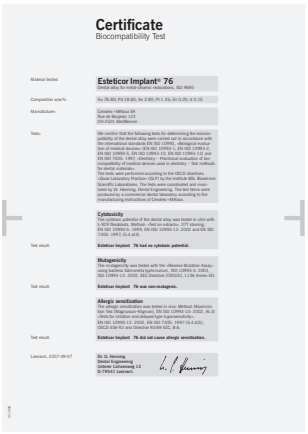


Accurate marginal fit

Perfect castings

Pure as nature – highest corrosion resistance





Certificate
Biocompatibility Test

Esteticor Implant® 76

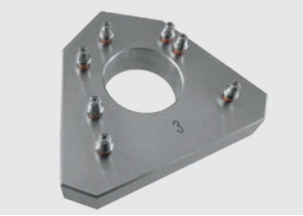
Bioservice Scientific Laboratories (BSL)

– The release of metal ions is smaller than 0,1 µg/cm² in 7 days and therefore hardly measurable
– Low quantity of released metal ions = low risk even for sensitive patients
– Low risk of osseo-disintegration = low risk for the patient
– Long term corrosion test > 80 days have shown no further release of metal ions

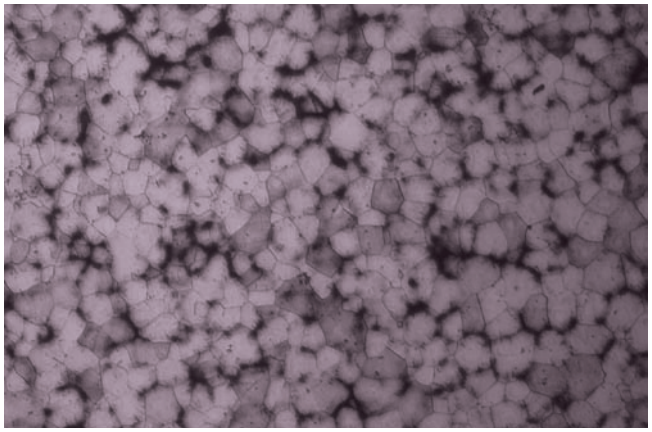
Three alloys
Esteticor Implant® alloys are ideal for restorations cemented or screwed on implants, where absolute precision is mandatory. Esteticor Implant® alloys are available in three different compositions, ideal for every budget.

Tested – found exceptional
Density, solidus, hardness, elongation or CTE: The Esteticor Implant® alloys all have excellent properties not found in other alloys. The firing stability has been tested in a ceramic furnace. 3 firings with 4 identical samples of Esteticor Implant® alloys, mounted on a special support, with and without load were conducted. **The result: minimal deformation during ceramic firing cycles.**

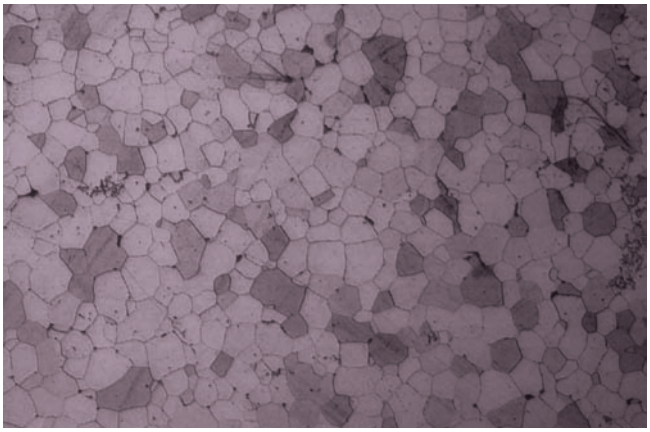
Measurement of deformation: After simulation of ceramic firing cycles



Proof of accurate fit: Tested on rigid steel models with implants



Metallic structure after casting



Stress-relieved and stabilized metallic structure

Accurate fit - thanks to thermal homogenization of the alloy structure
Simple and efficient – along with the two specific thermal treatments which relieve the stress in the alloy's structure, the ideal chemical composition of Esteticor Implant® guarantees an absolutely accurate fit and therefore a tension-free restoration. Furthermore, no welding or soldering is required!

Thermal homogenization:
1st Thermal treatment after casting, including sprues and button stabilizes the precision of the cast framework.
2nd Thermal treatment after oxidation maintains framework accuracy and prevents potential framework deformation during subsequent ceramic firings.

Hard Facts

Advantages for the dentist
– Extremely high corrosion resistance
– 3 secure alloys, especially developed for implant-supported frameworks
– Absolute precision for screw-retained frameworks
– Biologically tested, therefore suitable for sensitive patients

Advantages for the dental technician
– Choice between 3 differently priced and especially developed alloys
– Medium-grey, neutral oxide shade = ideal for shade reproduction
– Perfect hardness as cast for easy grinding
– High solidus points ranging from 1165 °C–1215 °C = security
– Ideal CTE-ranges = rapid-normal cooling cycles (no slow cooling)
– Guaranteed precision (for screw-retained works on implants), thanks to the two special thermal treatments (stabilization firings).

«An alloy satisfying both dentist and dental technician standards and expectations can only be good for the patient».

Mechanical and physical properties of Esteticor Implant® alloys:

Compositions in %	**Esteticor Implant® 76** HIGH NOBLE HN		**Esteticor Implant® 58** HIGH NOBLE HN		**Esteticor Implant® 32** NOBLE N	
	Au+Pt group 96.90		Au+Pt group 87.50		Au+Pt group 73.00	
	Au 76.80		Au 58.50		Au 32.00	
	Pt 1.35		Pd 28.85		Pd 40.85	
	Pd 18.60		Sn 4.50		Sn 5.00	
	Sn 2.90		Ir 0.05		Ag 19.00	
	Zn 0.20		Ag 8.00		Ru 0.15	
	Ir 0.15		Ru 0.10		In 3.00	
	as cast	**after firing**	**as cast**	**after firing**	**as cast**	**after firing**
Hardness HV5	205	235	240	260	225	240
Tensile strength (Rm) in MPa	670	785	745	820	800	820
0.2 % Proof stress (Rp 0.2 %) in MPa	455	630	495	610	510	555
Elongation A5 in %	13.0	10.0	12.0	13.0	17.0	17.0
Melting range in °C	1165–1290		1215–1305		1215–1290	
Density in g/cm³	16.9		15.1		13.1	
	25–500 °C	**25–600 °C**	**25–500 °C**	**25–600 °C**	**25–500 °C**	**25–600 °C**
CTE in $10^{-6}\,K^{-1}$	13.7	13.9	13.8	14.0	14.2	14.5

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