

Instructions for use

Universal precious metal alloy for veneering with low-fusing ceramic having a high coefficient of thermal expansion or with dental resin

Mixing of different alloys or alloys of similar types is not allowed!
Wear darkened eye protection and protective gloves when melting.

Protect eyes, hands and breathing during pickling.

Protect eyes and breathing during processing with rotating instruments with an aspirator device.

With the publication of these instructions of use all previous editions are no longer valid.

The manufacturer refuses any liability for damages due to disregard of the instructions for use below.

General instructions for use

Modelling

Usual modelling technique for ceramic fused to metal works. Minimal wall thickness 0.4 mm. With bridgework the connections must have a minimum section of 6–9 mm². Modelling of garlands or inlay shaped reinforcements in the palatal region will give added stability. The application of air and cooling vents improves casting results.

Investing

The following investments are recommended for this type of alloys: Cendres+Métaux-Ceramicor® (phosphate-based, containing graphite).

CM-20 (based on quartz and cristobalite without graphite for the rapid preheating technique).

Reuse of alloy

Only use perfectly cleaned (by sandblasting with aluminium oxide) buttons and sprues and add **at least ½ of new alloy**.

Traceability of lot numbers

If different lots of an alloy are being used for the realisation of a restoration, all lot numbers concerned must be noted in order to assure traceability.

Melting

Esteticor® Ecologic can be molten and cast with all recommended casting systems. Contrary to alloys with a higher gold content, this alloy needs a longer time-span for a complete and thorough melting of all components.

Note: Please follow the exact instructions concerning melting and holding time prior to casting on the table overleaf.

Surface quality of cast objects

In order to prevent corrosion the cast object must have a surface free of shrink holes and porosities after trimming and polishing.

Cooling of castings

Do not quench the casting cylinder after casting, but bench cool to room temperature.

Pickling

After firing or soldering pickle in a warm, freshly prepared (clean) solution of 10 vol. % sulphuric acid (H₂SO₄).

Note: When using other pickling agents follow the instructions for use of the respective manufacturer.

Gilding of frameworks

Gilding is carried out at the user's own risk.

Polishing

After the last firing free metal surfaces must be polished to a high shine in order to completely remove the oxide layer.

Disinfection

Each prosthetic restoration must be cleaned and disinfected before try in or definite insertion in the mouth of the patient.

Further information

on processing precious metal alloys, soldering and casting-on are included in the Dental documentation of Cendres+Métaux and in the website www.cmsa.ch/dental.

Allergies

With patients having an existing allergy to one or several elements contained in an alloy, this particular alloy must not be used. With patients suspected of having an allergy to one or several elements contained in an alloy, this alloy can only be used after preliminary allergological testing and proof of a non existing allergy.







Rx only

The products carry the CE sign.
See packaging for details.

Physical and mechanical properties

Alloy	Indications						Colour	Composition in weight %											Solder ① Before firing	Solder ① After firing				
	a	b	c	d	e	f		Au- + Pt- Met.	Au	Pt	Pd	Ag	Cu	Sn	Zn	In	Ga	Ir			Ru	Re	Fe	Ta
Esteticor® Ecologic	✓	✓	✓	✓	✓	✓	Light yellow	49.00	32.00	2.00	15.00	42.00				9.00							S.G 920	S.G 700

ISO 22674 / ISO 9693

Indications	a	b	c	d	e	f
						
	Inlays, onlays	Single crowns	Short-span bridgework	Long-span bridgework	Milled work	Clasps, lingual bars, palatinal plates

① The use of solders not mentioned in the table is subject to the user's risk. In case of uncertainties, consult the instructions of the manufacturer involved.

Alloy	Density g/cm³	Melting range °C	Casting temp. °C	Crucible	Hardness				Young's Modulus GPa *	0.2 % proof stress, Rp 0.2 %				Elongation A5				Linear coefficient of thermal expansion CTE	
					as cast HV5 *	annealed HV5 *	after firing HV5 *	hardened HV5 *		as cast MPa *	annealed MPa *	after firing MPa *	hardened MPa *	as cast % *	annealed % *	after firing % *	hardened % *	(25–500°C) 10 ⁻⁶ K ⁻¹	(25–600°C) 10 ⁻⁶ K ⁻¹
Esteticor® Ecologic	12.7	990–1065	1250 ② 1300 ②	② ③	190	180	220	220	95	435	360	515	535	7	12	8	6	17.0	17.5

② Universal ceramic crucible ③ Vitrified carbon crucible

* The values indicated result from measurements obtained under exactly defined conditions. Individual deviations of ± 10% are possible and to be considered as normal.

Particular instructions for use

Alloy	Recommended investments	Preheating temperature	Recommended casting systems (not compulsory)					Average holding time after melting prior to casting in seconds	Average holding time after melting prior to casting in seconds	Average holding time after melting prior to casting in seconds
			Propane-oxygen flame 1)	Vacuum-pressure casting with electric resistance furnace 2)	Centrifugal casting with electric resistance furnace 3)	High frequency induction in atmosphere 4)	High frequency induction in protective gas atmosphere 5)			
Esteticor® Ecologic	Phosphate-based investments	800 °C	✓	✓	✓	✓	✓	1) + Ⓣ = 10–15 s	2) 3) + Ⓣ = 30–45 s 2) 3) + Ⓣ = 30–45 s	4) 5) + Ⓣ = 10–15 s 4) 5) + Ⓣ = 10–15 s

Alloy	Thermal treatment of the framework before surface treatment (not compulsory)	Trimming of the framework surface with ceramically bonded grinding stones	Annealing (for inlays, onlays)	Hardening Full- and telescopic crowns, bridgework prior to veneering with dental resin, cast removable dentures or clasps
Esteticor® Ecologic	820 °C / 10 min / air	✓	850 °C / 30 min / H ₂ O	820 °C / 15 min / air + 400 °C / 15 min / air

Alloy	Sandblasting with non-recycled aluminium oxide (Al ₂ O ₃) 50 μm	Cleaning with steam jet	Oxide firing (not compulsory) with vacuum	Hardening after ceramic firings (not compulsory)
Esteticor® Ecologic	✓	✓	860 °C / 10 min	400 °C / 15 min / air

Alloy	Tested compatible ceramic compound	Special indications for veneering with ceramic compounds				Heating rate max.	Other ceramic compounds
		Slow cooling	Normal cooling	Rapid cooling			
Esteticor® Ecologic	EVOLUTION	✓			60 °C / min	The alloy is compatible with the usual low-fusing ceramic compounds. In case of doubt, consult the instructions of the ceramic manufacturer concerned.	
	DUCERAGOLD	✓			60 °C / min		
	CARRARA VINCENT	✓			60 °C / min		
	VITA RESPONSE	✓			60 °C / min		