

## Universal precious metal alloy for veneering with low-fusing ceramic 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With the publication of these instructions of use all previous editions are no longer valid.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 mm<sup>2</sup>. 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: **CM Ceramicor** (phosphate based, containing graphite).

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

**Plaster-based investments** are specially indicated for precision-castings of inlays and single crowns.

#### Re use of alloy

Only use perfectly cleaned (by sandblasting with aluminium oxide) buttons and sprues and add **at least 1/3 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.

#### 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 (H<sub>2</sub>SO<sub>4</sub>).

**Note:** When using other pickling agents follow the instructions for use of the respective manufacturer. Gilding of frameworks Gilding is carried out at the users 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](http://www.cmsa.ch/dental).

### Allergies

With patients having an existing allergy to one or several elements contained in any one alloy, this particular alloy must not be used. With patients suspected of having an allergy to one or several elements contained in any one 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						Color	Composition in weight %								Solder ① before firing	Solders ① after firing	Wire for laser welding Ref.	
	a	b	c	d	e	f		Au- + Pt- Met.	Au	Pt	Pd	Ag	In	Zn	Sn				Ir
DGV08 H	✓	✓	✓	✓	✓	✓	Yellow	80.50	73.10	1.50	5.80	16.00	0.20	2.80	0.50	0.10	S.G 880	S.G 700	01000001

### 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, palatal 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/cm <sup>3</sup>	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 <sup>-6</sup> K <sup>-1</sup>	(25–600°C) 10 <sup>-6</sup> K <sup>-1</sup>
DGV08 H	15.8	960–1065	1165–1215	① ② ③	230	180	250	265	110	620	335	675	720	5	22	5	5	15.9	16.4

① Graphite crucible 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	Preheating temperatures	Recommended casting systems (not compulsory)				High frequency in atmosphere	High frequency in protective gas atmosphere	Trimming of the framework surface with ceramically bonded grinding stones	Sandblasting with non-recycled aluminium oxide (Al <sub>2</sub> O <sub>3</sub> ) 50µm
		Propane-oxygen flame	Vacuum-pressure casting with electric resistance furnace	Centrifugal casting with electric resistance furnace					
DGV08 H	700°C	✓	✓	✓	✓	✓	✓	✓	

Alloy	Cleaning with steam jet	Oxide firing with vacuum	Pickling after oxide firing in a warm and clean solution of 10 Vol. % sulphuric acid (H <sub>2</sub> SO <sub>4</sub> )	Cleaning with steam jet	Annealing	Hardening

Alloy	Special indications for veneering with ceramic compounds				Compatible tested ceramics	Other ceramic compounds
	Slow cooling	Normal cooling	Rapid cooling	Heating rate max.		
DGV08 H		✓		60°C / min	DuceraGold	The alloy is compatible with the usual low-fusing ceramic compounds <b>with a high CTE</b> . In case of doubt, consult the instructions of the ceramic manufacturer concerned.