

Callisto[®] 86

Economic high-gold alloy

Callisto® 86 is a high-gold ceramic alloy with a warm golden colour for high-quality restorations fabricated using the layering and press technique in particular.

Au 86.2

Pt 7.2

Pd 3.6

In 1.3 **Sn** < 1.0

Fe < 1.0

Mn < 1.0

R < 1

Re < 1.0

Advantages

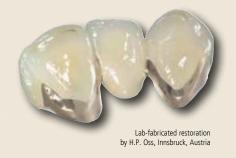
- Warm golden colour for esthetic, high-quality metal-ceramic restorations
- True-to-nature shade effect originating from the framework structure
- Optimized high-gold ceramic alloy as an economic alternative to high-price gold alloys
- The range of indications includes fixed restorations fabricated in the layering and press technique, but the alloy is also suitable for the milling technique and full cast restorations
- Excellent melting and casting properties resulting in a homogeneous microstructure
- Easy handling and polishing properties
- Outstanding bonding strength with the veneering materials from Ivoclar Vivadent
- Tested and certified biocompatibility (high corrosion resistance)

Indications

Inlays, onlays, ¾ crowns, crowns, telescopic and conus crowns, posts, short- and long-span bridges

Technical Data

Colour	rich yellow				
Туре	4				
Density (g/cm³)	18.2				
Melting range (°C)	1060-1165				
Casting temperature (°C)	1225-1255				
Oxide firing °C / min / vacuum	925 / 1 / no vacuum				
CTE 25-500 °C	14.4				
Vickers hardness	180				
0.2 % proof stress (MPa)	425				
Modulus of elasticity (MPa)	108,000				
Elongation (%)	12				











Certificate

Test material: Callisto[®] 86

Composition in %					Sn					
Callisto® 86	86.2	7.2	3.6	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Manufacturer Ivoclar Vivadent Inc., 175 Pineview Drive, Amherst, NY 14228, USA

Corrosion resistance The test was conducted according to the international regulations of ISO 22674 and

ISO 10271: static immersion testing through analytical determination of the metal ion

release after a 7-day immersion.

Result: The metal ion release after 7 days of immersion was not significant.

Testing facility:

Department of Biomedical Materials Science, University of Mississippi Medical Center Dr. Jason Griggs, 2500 North State Street, Room D528, Jackson, MS 39216-4505

Cytotoxicity The Agar Diffusion test determines the reactivity of the cell culture on the test material.

Result: The test material is considered non-cytotoxic and meets the requirements of

the Agar Diffusion test according to ISO 10993-5.

Testing facility:

Toxikon Corporation, 15 Wiggins Avenue, Bedford, MA 01730

Mutagenicity An Ames assay was conducted to determine any possible cancer potential.

Test results: No mutagenicity potential was found to exist in these alloys.

Kligman Maximization This test evaluated the allergenic potential and/or sensitizing capacity of these alloys.

Test results: Based on the standards set by the study protocol, these alloys exhibited

no reaction of the challenge (0 % sensitization)

Sensitivity of oral mucosa Test to determine the contact sensitivity of these alloys at the buccal oral mucosa.

Test results: No reactions were noted in conjunction with these alloys.

Testing facility: Toxikon Corporation, 15 Wiggins Avenue, Bedford, Massachusetts

Amherst, June 2013

Dr. George Tysowsky, D. D. S., M. P. H.

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