

Callisto® 84



Economic high-gold alloy

Callisto® 84 is a high-gold ceramic alloy with a very rich, yellow colour for the high-quality layering and press technique.

Au 84.4	Pt 6.3	Pd 5.5	In 1.2	Ag <1.0	Sn <1.0	Fe <1.0	Mn <1.0	Li <1.0	Ru <1.0	Re <1.0	Nb <1.0
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Advantages

- 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
- Very good 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
Type	4
Density (g/cm ³)	17.7
Melting range (°C)	1070–1175
Casting temperature (°C)	1235–1265
Oxide firing °C / min / vacuum	950 / 1 / no vacuum
CTE 25–500 °C	14.3
Vickers hardness	180
0.2 % proof stress (MPa)	405
Modulus of elasticity (MPa)	101,000
Elongation (%)	15.0



Lab-fabricated restoration
by H.P. Oss, Innsbruck, Austria

Certificate

Test material: Callisto® 84

Composition in %	Au	Pt	Pd	In	Ag	Sn	Fe	Mn	Li	Ru	Re	Nb
Callisto® 84	84.4	6.3	5.5	1.2	<1.0	<1.0	<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.
Vice President-Technology