

Callisto[®] Implant 33



Economical, reduced-gold implant alloy

Callisto Implant 33 is a reduced-gold ceramic alloy which is especially suitable for the fabrication of implant superstructures as a result of its composition and physical properties.

Pd 52.8	Au 33.0	Ag 7.2	Ga 4.1	Sn 2.4	In <1.0	Re <1.0	Ru <1.0	Li <1.0
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Advantages

- **Inexpensive, reduced-gold alloy with a low density for increased economic efficiency**
- **Wide indication range, particularly suitable for implant superstructures**
- **Excellent physical properties: particularly high strength values, especially for long-span restorations**
- **Convenient handling and polishing properties**

Indications

Inlays, onlays, partial crowns, crowns, ceramic crowns, telescope and conus crowns, root canal posts, short- and long-span bridges, implant superstructures, model casting

Technical data

Colour	white
Type	4
Density (g/cm ³)	12.6
Melting interval (°C)	1115 – 1305
Casting temperature (°C)	1370 – 1426
CTE 25 – 500 °C	14.0
Elongation (%)	35
Modulus of elasticity (MPa)	120,000
Oxide firing °C / minutes / vacuum	925 / 1 / no vacuum
Vickers hardness	235
0.2% proof stress (MPa)	500



Certificate

Test material: Callisto® Implant 33

Composition in mass %	Pd	Au	Ag	Ga	Sn	In	Re	Ru	Li
Callisto® Implant 33	52.8	33.0	7.2	4.1	2.4	<1.0	<1.0	<1.0	<1.0

Manufacturer

Ivoclar Vivadent AG, Bendererstrasse 2, FL-9494 Schaan, Liechtenstein

Corrosion resistance

The test was conducted according to the international regulations of ISO 1562 and ISO 6871-1: static immersion test 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: University of Mississippi Medical Center, 2500 North State Street Jackson, MS 39 216-4505

Cytotoxicity

The Agar Diffusion test determines the biological reactivity of cell culture on 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, Massachusetts

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



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