Callisto® 75 Pd

Palladium-based Ceramic Alloy

Callisto® 75 Pd is an economic palladium-based alloy for veneering with ceramic material in the layering and press technique due to its coordinated mechanical and physical properties.

Pd	Au	Ag	Sn	Ga	In	Zn	Re	Ru	Li
75.2	2.5	7.1	9.3	4.2	1.0	<1.0	<1.0	<1.0	<1.0

Advantages

- **Wide range of indications from single restorations to long-span bridges**
- **Excellent physical properties with high strength values, ideally suitable also for the press technique and implant superstructures**
- **Excellent melting and casting properties for a homogeneous microstructure**
- **Convenient handling and polishing properties**
- **Compatible with the most popular veneering ceramics for the layering and the press technique**

Indications

Inlays, onlays, partial crowns, single crowns, telescope and conus crowns, posts, short- and long-span bridges, implant superstructures, partial dentures

Technical data

Colour	white
Type	4
Density (g/cm³)	10.8
Melting range (°C)	1130 – 1296
Casting temperature (°C)	1360 – 1396
CTE 25 - 500 °C	13.9
Oxide firing °C/ min / vacuum	900 / 1 / no vacuum
Vickers hardness	230
0.2 % proof stress (MPa)	500
Modulus of elasticity (MPa)	136.000
Elongation (%)	40.0

Dental restorations by
H.P. Oss, Austria

ivoclar vivadent®
passion vision innovation

Biocompatibility Testing

Certificate

Test material: Callisto® 75 Pd

Composition in %	Pd	Au	Ag	Ga	Sn	In	Zn	Re	Ru	Li
Callisto® 75 Pd	75.2	2.5	7.1	4.2	9.3	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 ISO 22674 and ISO 10271: 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 facilities:
– Texas A&M Health Science Center, Mari Koike, DDS, Ph. D.

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.

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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