

Palladium-based ceramic alloy

especially for implant superstructures

 Pd
 Ag
 Au
 Pt
 Sn
 In
 Ga
 Zn
 Re

 60.0
 25.2
 2.0
 <1.0</td>
 7.5
 2.0
 1.0
 1.6
 <1.0</td>

Advantages

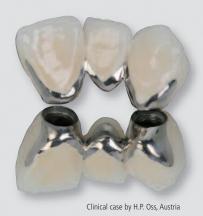
- High strength
- Economical due to low density
- High corrosion resistance
- Excellent milling properties
- Low melting range

Indications

Onlays, $\frac{3}{4}$ crowns, PFM Crowns, crowns, telescope/conus crowns, posts, short and long span bridges, implant superstructures, partial dentures

Technical Data

Type 4 Density (g/cm³) 10.8 Melting range (°C) 1100 – 1260 Casting temperature (°C) 1320 – 1360 CTE 25 – 500 °C 14.5 CTE 20 – 600 °C 14.8 Elongation (%) 19.0 Modulus of elasticity (MPa) 130,000 Oxide firing °C / minutes / vac. 950 / 1 / no vacuum Vickers hardness 275
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-
Vickers hardness 275
2.5
Proof stress (0.2 % offset) (MPa) 610











Certificate

Test material: Implant Ceramic alloy

Composition in % weight	Au	Pt	Pd	Ag	Sn	In	Ga	Zn	Fe	Re	Rh	Ru
Callisto® Implant 78	78.6	9.7	7.9	_	_	3.4	_	_	<1.0	<1.0	<1.0	<1.0
Callisto® Implant 60	2.0	<i>-</i> 1 0	60.0	25.2	7.5	2.0	1.0	1.6	_	<1 O	_	_
Callisto Implant oo	2.0	V1.0	00.0	23.2	7.5	2.0	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 1562 and

ISO 6871–1: static immersion test through analytical determination of the metal ion

release after a 7-day immersion.

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

Testing facility: Louisiana State University, Dr. Sakar

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

material.

Test results: 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 to the challenge (0 % sensitization).

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

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

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

Amherst, May 2010

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Vice President-Tochnology

Vice President-Technology

