



Evolution[®] Lite

Reduced-gold ceramic alloy

Gold containing alloy with ideal mechanical and physical properties for the IPS InLine[®] Metal-ceramic system and conventional feldspar ceramics.

Au 40.3	Pd 39.3	Ag 9.2	In 9.3	Ga 1.8	Ru <1.0
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Advantages

- Lighter oxide
- Good melting and flow properties
- High resistance to marginal deformation with multiple firings
- Easy processing and polishing
- High corrosion stability

Indications

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

Technical data

Colour	white
Type	4
Density (g/cm ³)	12,8
Melting range (°C)	1100 – 1260
Casting temperature (°C)	1315 – 1375
CTE 25 – 500 °C	14,2
CTE 20 – 600 °C	14,5
Elongation (%)	11,0
Modulus of elasticity (MPa)	130,000
Oxide firing °C / minutes / vac.	950 / 5 / no vac.
Vickers hardness	280
Proof stress (0.2 % offset) (MPa)	565



Certificate

Test material: Reduced-gold ceramic bonded alloy

Composition in % weight	Au	Pd	Ag	In	Ga	Ru
Evolution® Lite	40.3	39.3	9.2	9.3	1.8	< 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.

Sensitivity of oral mucosa

Test to determine the contact sensitivity of this alloy at the buccal oral mucosa.

Test results: No reactions were noted in conjunction with this alloy.

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

Amherst, May 2010

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