

This alloy corresponds to the standards ISO 22674/Type 2 and ISO 9693-1. It can be applied as a dental Laser wire corresponding to the standard ISO 28319.

1. Composition

Au + Pt group-metals	83.50%
Au	75.10%
Ag	13.80%
Pt	8.30%
Zn	2.30%
In	0.20%
Ta	0.10%
Mn	0.10%
Ir	0.10%

2. Physical Properties

Melting range	975-1090°C
Density	16.8 g/cm ³
Young's Modulus	115 GPa
Linear Coeff. of thermal expansion (25-500°C)	15.8 x 10 ⁻⁶ K ⁻¹
Linear Coeff. of thermal expansion (25-600°C)	16.0 x 10 ⁻⁶ K ⁻¹
Colour	yellow

3. Mechanical Properties

	as cast	after firing 820°C/10'/vac & Cosmica
Condition		
Hardness HV5	150	130
Tensile strength (Rm)	485 MPa	440 MPa
0.2% Proof stress (Rp 0.2%)	310 MPa	245 MPa
Elongation	10 %.	19 %.
Schwickerath crack initiation test		

4. Biological tests

Cytotoxicity test according to ISO 10993-5:

The cytotoxicity test has not been realised.

Sensitization test according to ISO 10993-10:

The sensitization test has not been realised.

Mutagenicity test (AMES) according to ISO 10993-3:

The AMES test has not been realised.

Results:

Biological tests have not been realised.

5. Certification

This alloy corresponds to the standards ISO 22674/Type 2 and ISO 9693-1. It can be applied as a dental Laser wire corresponding to the standard ISO 28319.

Corrosion testing according to standard showed that a total of $0.2\mu\text{g}/\text{cm}^2 \times 7\text{d}$ was released (limit: $200\mu\text{g}/\text{cm}^2 \times 7\text{d}$).

Manufacture, packing and delivery are constantly monitored according to the quality management system standards according to ISO 9001 and ISO 13485.

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