

This alloy corresponds to the standard ISO 22674/Type 4. It can be applied as a dental Laser wire corresponding to the standard ISO 28319.

1. Composition

| | |
|----------------------|--------|
| Au + Pt group-metals | 75.40% |
| Au | 71.60% |
| Ag | 12.70% |
| Cu | 10.80% |
| Pt | 3.75% |
| Zn | 1.10% |
| Ir | 0.05% |

2. Physical Properties

| | |
|-----------------|------------------------|
| Melting range | 890-935°C |
| Density | 15.5 g/cm ³ |
| Young's Modulus | 90 GPa |
| Colour | yellow |

3. Mechanical Properties

| | as cast | soft | hardened |
|-----------------------------|---------|----------------------------|--|
| Condition | | 700°C/10'/H ₂ O | 700°C/10'/H ₂ O&400°C/15'/air |
| Hardness HV5 | 245 | 180 | 240 |
| Tensile strength (Rm) | 725 MPa | 535 MPa | 750 MPa |
| 0.2% Proof stress (Rp 0.2%) | 610 MPa | 405 MPa | 635 MPa |
| Elongation | 17 %. | 33 %. | 14 %. |

4. Biological tests

Cytotoxicity test according to ISO 10993-5:

The cytotoxic effect of the alloy was tested with the extract test.
(Project, 222006, 03.06.1991, CCR, DE-6101 Rossdorf, Germany)

Sensitization test according to ISO 10993-10:

The allergic sensitization of the alloy was tested with the maximization test.
(Project 291767, 24.06.1991, RCC, Itingen/Basel, Switzerland)

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

The AMES test has not been realised.

Results:

The alloy showed no cytotoxic potential nor did it cause any allergic sensitization.

5. Certification

This alloy corresponds to the standard ISO 22674/Type 4. It can be applied as a dental Laser wire corresponding to the standard ISO 28319.

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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