

1. Composition

Au + Pt group-metals	75.35%
Ag	11.85%
Cu	10.60%
Pd	3.95%
Zn	2.50%
Pt	2.45%
Ir	0.05%
Au	>68.60%

2. Physical Properties

Melting range	895-960°C
Density	15.0 g/cm ³
Young's Modulus	135 GPa
Colour	yellow

3. Mechanical Properties

	as cast	soft	hardened
Condition		700°C/10'/H2O	700°C/10'/H2O&400°C/15'/air
Hardness HV5	270	175	275
Tensile strength (Rm)	850 MPa	535 MPa	780 MPa
0.2% Proof stress (Rp 0.2%)	685 MPa	410 MPa	680 MPa
Elongation	13 %.	35 %.	12 %.

4. Biological tests

Cytotoxicity test according to ISO 10993-5:

The cytotoxic effect of the alloy was tested with the extract test.
(Project, 189303, 27.04.1990, 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 310757, 23.12.1991, RCC, Itingen/Basel, Switzerland)

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

The mutagenicity was tested with the «Reverse Mutation Assay» using bacteria Salmonella typhimurium.
(Project 100873, 26.03.2010, BSL Bioservice, DE-82152 Planegg, FRG)

Results:

The alloy showed neither a cytotoxic nor a mutagenic potential nor did it cause any allergic sensitization.

5. Certification

This casting alloy corresponds to the standard ISO 22674/Type 4.

Corrosion testing according to standard ISO 10271 showed that a total of $0.9 \mu\text{g}/\text{cm}^2 \times 7\text{d}$ 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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