

1. Composition

Au + Pt group-metals	90.00%
Au	51.50%
Pd	38.40%
In	8.50%
Ga	1.50%
Ru	0.10%

2. Physical Properties

Melting range	1210-1310°C
Density	14.5 g/cm ³
Young's Modulus	115 GPa
Linear Coeff. of thermal expansion (25-500°C)	13.6 x 10 ⁻⁶ K ⁻¹
Linear Coeff. of thermal expansion (25-600°C)	13.9 x 10 ⁻⁶ K ⁻¹
Colour	white

3. Mechanical Properties

	as cast	after firing ISO 22674 950°C/10/air&Geller Creation CC
Condition		
Hardness HV5	225	245
Tensile strength (Rm)		790 MPa
0.2% Proof stress (Rp 0.2%)		525 MPa
Elongation		25 %
Schwickerath crack initiation test		37 MPa

4. Biological Testing

Cytotoxicity Test according to ISO 10993-5:

The cytotoxic effect of the alloy was tested with the Extraction Test.
(Project, 100559N, 04.03.2010, BSL Bioservice, DE-82152 Planegg, FRG)

Sensitization Test according to ISO 10993-10:

The allergic sensitization of the alloy was tested with the Maximation Test.
(Project 81E501, 30.08.1995, BIOMATECH, Rue Pasteur, 38670 CHASSE SUR RHONE, France)

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

The mutagenicity was tested with the «Reverse Mutation Assay» using bacteria Salmonella typhimurium.
(Project 101038, 19.04.2010, 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 metal-ceramic alloy corresponds to the standards ISO 22674/Type 4 and ISO 9693.

Corrosion testing according to standard ISO 10271 showed, that a total of $0.69 \mu\text{g}/\text{cm}^2 \times 7\text{d}$ was set free (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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