

### 1. Composition

Au + Pt group-metals	48.98%
Ag	42.00%
Au	32.00%
Pd	15.00%
In	9.00%
Pt	2.00%

### 2. Physical Properties

Melting range	990-1065°C
Density	12.7 g/cm <sup>3</sup>
Young's Modulus	95 GPa
Linear Coeff. of thermal expansion (25-500°C)	17.0x10 <sup>-6</sup> K <sup>-1</sup>
Linear Coeff. of thermal expansion (25-600°C)	17.5x10 <sup>-6</sup> K <sup>-1</sup>
Colour	pale yellow

### 3. Mechanical Properties

	as cast	after firing ISO 820°C/15' air	soft 850°C/30'/H2O	hardened ISO 820°C/15' & 400°C/15'/air
Condition				
Hardness HV5	190	220	180	220
Tensile strength (Rm)	625 MPa	685 MPa	580 MPa	690 MPa
0.2% Proof stress (Rp 0.2%)	435 MPa	515 MPa	360 MPa	535 MPa
Elongation	7 %.	8 %.	12 %.	6 %.
Schwickerath crack initiation test		34 MPa		

### 4. Biological tests

#### Cytotoxicity test according to ISO 10993-5:

The cytotoxic effect of the alloy was tested with the extract test.  
(Project, 0103703, 09.03.2001, BSL Bioservice, DE-82152 Planegg, FRG)

#### Sensitization test according to ISO 10993-10:

The allergic sensitization of the alloy was tested with the maximization test.  
(Project 012054, 30.10.2001, BSL Bioservice, DE-82152 Planegg, FRG)

#### 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 universal alloy corresponds to the standards ISO 22674/Type 4 and ISO 9693.

Corrosion testing according to standard ISO 10271 showed that a total of 0.9µg/cm<sup>2</sup>×7d was released (limit: 200µg/cm<sup>2</sup>×7d).

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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