

1. Composition

Pt group-metals	53.80%
Pd	53.60%
Ag	37.59%
Sn	8.60%
Ru	0.20%
B	0.01%

2. Physical Properties

Melting range	1190-1270°C
Density	11.2 g/cm ³
Young's Modulus	125 GPa
Linear Coeff. of thermal expansion (25-500°C)	14.8 x10 ⁻⁶ K ⁻¹
Linear Coeff. of thermal expansion (25-600°C)	15.1 x10 ⁻⁶ K ⁻¹
Colour	white

3. Mechanical Properties

	as cast	after firing ISO 950°C
Condition		
Hardness HV5	225	225
Tensile strength (Rm)	775 MPa	785 MPa
0.2% Proof stress (Rp 0.2%)	525 MPa	520 MPa
Elongation	17 %.	25 %.
Schwickerath crack initiation test		59 MPa

4. Biological tests

Cytotoxicity test according to ISO 10993-5:

The cytotoxic effect of the alloy was tested with the extract test.
(Project, 194207, 06.06.1990, 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 266253, 28.06.1990, 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 metal-ceramic alloy corresponds to the standards ISO 22674/Type 4 and ISO 9693.

Corrosion testing according to standard DIN 13927 showed that a total of $1.0\mu\text{g}/\text{cm}^2 \times 7\text{d}$ 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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