

1. Composition

Pt group-metals	57.50%
Pd	57.45%
Ag	32.00%
In	6.00%
Sn	2.00%
Ga	1.50%
Zn	1.00%
Ru	0.05%

2. Physical Properties

Melting range	1135-1275°C
Density	11.3 g/cm ³
Young's Modulus	110 GPa
Linear Coeff. of thermal expansion (25-500°C)	14.6 x 10 ⁻⁶ K ⁻¹
Linear Coeff. of thermal expansion (25-600°C)	14.9 x 10 ⁻⁶ K ⁻¹
Colour	white

3. Mechanical Properties

	as cast	hardened	after firing
Condition		600°C/15'/air	ISO 22674 950°C/Geller Creation CC
Hardness HV5	255	305	250
Tensile strength (Rm)		965 MPa	780 MPa
0.2% Proof stress (Rp 0.2%)		490 MPa	565 MPa
Elongation		19 %.	13 %.
Schwickerath crack initiation test			36.9 MPa

4. Biological Testing

Cytotoxicity Test according to ISO 10993-5:

The cytotoxic effect of the alloy was tested with the Extraction Test.

(Project, E, 19.12.1988, Laboratoires Prof. Craig & Wataha, University of Michigan, Ann Arbor, Michigan, USA)

Sensitization Test according to ISO 10993-10:

There have been no sensitization test.

Results:

The alloy showed no cytotoxic potential.

5. Certification

This metal-ceramic alloy corresponds to the standards ISO 22674/Type 4 and ISO 9693.

Corrosion testing according to standard ISO 22674 showed, that a total of 0.58 µg/cm²x7d was set free (limit: 200 µg/cm²x7d).

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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