

Material Data Sheet

for: Neocast® 3

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

1. Composition

Au + Pt group-metals	75.40%
Au	71.60%
Ag	12.70%
Cu	10.80%
Pt	3.75%
Zn	1.10%
Ir	0.05%

2. Physical Properties

Melting range	890-920°C
Density	15.5 g/cm ³
Young's Modulus	95 GPa
Colour	yellow

3. Mechanical Properties

	as cast	soft	hardened
Condition		700°C/10/H ₂ O	700°C/10/H ₂ O&400°C/15/air
Hardness HV5	245	180	240
Tensile strength (Rm)	765 MPa	535 MPa	750 MPa
0.2% Proof stress (Rp 0.2%)	620 MPa	405 MPa	635 MPa
Elongation	16 %.	33 %.	14 %.

4. Biological Testing

Cytotoxicity Test according to ISO 10993-5:

The cytotoxic effect of the alloy was tested with the Extraction Test. (Project, 222006, 01.05.2007, RCC, Ittingen/Basel, Switzerland)

Sensitization Test according to ISO 10993-10:

The allergic sensitization of the alloy was tested with the Maximation Test. (Project 291767, 01.05.2007, RCC, Ittingen/Basel, Switzerland)

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

There have been no AMES test.

Results:

The alloy showed no cytotoxic 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 DIN 13927 showed, that a total of 1.9µg/cm²×7d was set free (limit: 200µg/cm²×7d).

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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