

Material Data Sheet

for: Neocast® 3

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

1. Composition

Au + Pt group-metals	3	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		890-935°C
Density		15.5 g/cm ³
Young's Modulus	3	90 GPa
Colour		yellow

3. Mechanical Properties	as cast	soft	hardened
Condition		700°C/10'/H2O	700°C/10'/H20&400°C/15'/air

Condition		700 0/10/1120	700 0/10/11200-00 0/13
Hardness HV5	245	180	240
Tensile strength (Rm)	725 MPa	535 MPa	750 MPa
0.2% Proof stress (Rp 0.2%)	610 MPa	405 MPa	635 MPa
Elongation	17 %.	33 %.	14 %.

4. Biological tests

Cytotoxicity test according to ISO 10993-5:

The cytotoxic effect of the alloy was tested with the extract test. (Project, 222006, 03.06.1991, 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 291767, 24.06.1991, 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 casting alloy corresponds to the standard ISO 22674/Type 4.

Corrosion testing according to standard ISO 10271 showed that a total of 1.1 μ g/cm²×7d was released (limit: 200 μ g/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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