

# Material Data Sheet

## for: Aurofluid® 2 PF

This casting alloy corresponds to the standard ISO 22674/Type 2.

### 1. Composition

Au + Pt group-metals	79.06%
Au	78.05%
Ag	11.50%
Cu	8.50%
Pt	0.99%
Zn	0.94%
Ir	0.02%

### 2. Physical Properties

Melting range	895-960°C
Density	15.9 g/cm <sup>3</sup>
Young's Modulus	90 GPa
Colour	yellow

### 3. Mechanical Properties

	as cast	soft	hardened
Condition		700°C/10/H <sub>2</sub> O	250°C/15/air
Hardness HV5	140	125	135
Tensile strength (R <sub>m</sub> )	425 MPa		
0.2% Proof stress (R <sub>p</sub> 0.2%)	280 MPa	260 MPa	320 MPa
Elongation	48 %.	40 %.	30 %.

### 4. Biological tests

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

The cytotoxic effect of the alloy was tested with the extract test.  
(Project, 100559A, 24.02.2010, 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 100759A, 23.04.2010, BSL Bioservice, DE-82152 Planegg, FRG)

#### Mutagenicity test (AMES) according to ISO 10993-3:

The mutagenicity was tested with the «Reverse Mutation Assay» using bacteria Salmonella typhimurium.  
(Project 101026, 30.03.2010, BSL Bioservice, DE-82152 Planegg, FRG)

#### Results:

The alloy showed neither a cytotoxic nor a mutagenic potential nor did it cause any allergic sensitization.

## 5. Certification

This casting alloy corresponds to the standard ISO 22674/Type 2.

Corrosion testing according to standard ISO 10271 showed that a total of  $2.4\mu\text{g}/\text{cm}^2 \times 7\text{d}$  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.

### Cendres+Métaux SA



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