

# Material Data Sheet

## for: Yellow Special

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

### 1. Composition

Au + Pt group-metals	43.20%
Ag	44.90%
Au	41.00%
Cu	11.00%
Pd	1.70%
Zn	0.70%
Pt	0.45%
Sn	0.20%
Ru	0.05%

### 2. Physical Properties

Melting range	825-900°C
Density	12.5 g/cm <sup>3</sup>
Young's Modulus	90 GPa
Colour	yellow

### 3. Mechanical Properties

	as cast	soft	hardened
Condition		650°C/10'/H <sub>2</sub> O	400°C/15'/air
Hardness HV5	160	130	260
Tensile strength (Rm)	515 MPa	450 MPa	670 MPa
0.2% Proof stress (Rp 0.2%)	400 MPa	275 MPa	440 MPa
Elongation	20 %.	31 %.	13 %.

### 4. Biological tests

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

The cytotoxic effect of the alloy was tested with the extract test.

(Project, 1, 12.09.1995, Laboratoires Prof. Craig & Wataha, University of Michigan, Ann Arbor, Michigan, USA)

#### Sensitization test according to ISO 10993-10:

The sensitization test has not been realised.

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

The AMES test has not been realised.

#### Results:

The alloy did not show any cytotoxic potential.

**5. Certification**

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

Manufacture, packing and delivery are constantly monitored according to the quality management system standards according to ISO 9001 and ISO 13485.

**Cendres+Métaux SA**



Dr. Carmen Krüger  
Head of Materials Development



Dr. Flavio Campana  
Head of Material Testing