Material Data Sheet
for: Aurofluid® 2 PF

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

1. Composition

<table>
<thead>
<tr>
<th>Substance</th>
<th>Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Au + Pt group-metals</td>
<td>79.06%</td>
</tr>
<tr>
<td>Au</td>
<td>78.05%</td>
</tr>
<tr>
<td>Ag</td>
<td>11.50%</td>
</tr>
<tr>
<td>Cu</td>
<td>8.50%</td>
</tr>
<tr>
<td>Pt</td>
<td>0.99%</td>
</tr>
<tr>
<td>Zn</td>
<td>0.94%</td>
</tr>
<tr>
<td>Ir</td>
<td>0.02%</td>
</tr>
</tbody>
</table>

2. Physical Properties

- Melting range: 895-960°C
- Density: 15.9 g/cm³
- Young's Modulus: 90 GPa
- Colour: yellow

3. Mechanical Properties

<table>
<thead>
<tr>
<th>Condition</th>
<th>Hardness HV5</th>
<th>Tensile strength (Rm)</th>
<th>0.2% Proof stress (Rp 0.2%)</th>
<th>Elongation</th>
</tr>
</thead>
<tbody>
<tr>
<td>as cast</td>
<td>140</td>
<td>425 MPa</td>
<td>280 MPa</td>
<td>48 %</td>
</tr>
<tr>
<td>700°C/10/H2O</td>
<td>125</td>
<td>260 MPa</td>
<td>40 %</td>
<td></td>
</tr>
<tr>
<td>hardened</td>
<td>135</td>
<td>320 MPa</td>
<td>30 %</td>
<td></td>
</tr>
</tbody>
</table>

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 2.4µg/cm²x7d was released (limit: 200µg/cm²x7d).
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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for: Aurofluid® 2 PF