CENDRES+ MÉTAUX

Material Data Sheet

for: Solaro® 3

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

1. Composition

Au + Pt group-metals	61.50%
Au	56.00%
Ag	25.00%
Cu	11.80%
Pd	5.00%
Zn	1.70%
Pt	0.40%
Ir	0.10%

2. Physical Properties

Melting range	875-935°C
Density	13.7 g/cm³
Young's Modulus	110 GPa
Colour	yellow

3. Mechanical Properties

	as cast	soft	hardened
Condition		700°C/10'/H2O	400°C/15'/air
Hardness HV5	295	175	260
Tensile strength (Rm)	980 MPa		
0.2% Proof stress (Rp 0.2%)	885 MPa	350 MPa	600 MPa
Elongation	5 %.	30 %.	10 %.

4. Biological tests

Cytotoxicity test according to ISO 10993-5:
The cytotoxic effect of the alloy was tested with the extract test.
(Project, 100559J, 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 26675, 04.08.2004, BIOMATECH, Rue Pasteur, 38670 CHASSE SUR RHONE, France)

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

The mutagenicity was tested with the «Reverse Mutation Assay» using bacteria Salmonella typhimurium.
(Project 101034, 06.04.2010, BSL Bioservice, DE-82152 Planegg, FRG)

Results:
The alloy showed neither a cytotoxic nor a munagenic 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 2.8µg/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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