Material Data Sheet
for: Esteticor® Ideal H

This metal-ceramic alloy corresponds to the standards ISO 22674/Type 4 and ISO 9693.

1. Composition
   - Au + Pt group-metals: 97.00%
   - Au: 85.50%
   - Pt: 9.90%
   - Pd: 1.50%
   - In: 1.10%
   - Cu: 0.80%
   - Zn: 0.50%
   - Ag: 0.40%
   - Fe: 0.20%
   - Ir: 0.10%

2. Physical Properties
   - Melting range: 1045-1170°C
   - Density: 18.4 g/cm³
   - Young's Modulus: 90 GPa
   - Linear Coeff. of thermal expansion (25-500°C): 14.5 x 10⁻⁶ K⁻¹
   - Linear Coeff. of thermal expansion (25-600°C): 14.7 x 10⁻⁶ K⁻¹
   - Colour: Yellow

3. Mechanical Properties
   - Condition: as cast, after firing, soft
   - Condition: ISO 950°C, 900°C/30/H2O, 900°C/30/H2O & 500°C/15/air
     - Hardness HV5: 160, 195, 105
     - Tensile strength (Rm): 530 MPa, 615 MPa, 355 MPa
     - 0.2% Proof stress (Rp 0.2%): 375 MPa, 500 MPa, 170 MPa
     - Elongation: 15 %, 12 %, 31 %
     - Schwickerath crack initiation test: 63 MPa

4. Biological tests
   - Cytotoxicity test according to ISO 10993-5:
     The cytotoxic effect of the alloy was tested with the extract test.
   - Sensitization test according to ISO 10993-10:
     The allergic sensitization of the alloy was tested with the maximization test.
     (Project: 359954, 10.03.1994, 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 metal-ceramic alloy corresponds to the standards ISO 22674/Type 4 and ISO 9693.

Corrosion testing according to standard DIN 13927 showed that a total of 2.0µg/cm²×7d was released (limit: 200µg/cm²×7d).

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

Cendres+Métaux SA

[Signatures]

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