

# Material Data Sheet

## for: Esteticor® Accurate 40

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

### 1. Composition

Au + Pt group-metals	77.00%
Au	40.00%
Pd	36.80%
Ag	13.30%
In	9.50%
Ru	0.20%
Ga	0.20%

### 2. Physical Properties

Melting range	1210-1295°C
Density	13.6 g/cm <sup>3</sup>
Young's Modulus	125 GPa
Linear Coeff. of thermal expansion (25-500°C)	14.1 x10 <sup>-6</sup> K <sup>-1</sup>
Linear Coeff. of thermal expansion (25-600°C)	14.4 x10 <sup>-6</sup> K <sup>-1</sup>
Colour	white

### 3. Mechanical Properties

	as cast	after firing ISO 22674 960°C/5/air & Geller Creation CC
Condition		
Hardness HV5	235	245
Tensile strength (Rm)	635 MPa	715 MPa
0.2% Proof stress (Rp 0.2%)	485 MPa	490 MPa
Elongation	5 %.	15 %.
Schwickerath crack initiation test		50 MPa

### 4. Biological tests

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

The cytotoxic effect of the alloy was tested with the extract test.  
(Project, 105483B, 13.12.2010, 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 105484, 09.03.2011, BSL Bioservice, DE-82152 Planegg, FRG)

#### 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.

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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