

# **Material Data Sheet** (1379) - Ptlr3%

### 1. Composition

Pt			
lr			

97.00% 3.00%

#### 2. Physical Properties

I

Melting range Density Colour Young's Modulus 1770-1770°C 21.5 g/cm<sup>3</sup> platin 145 GPa

#### 3. Mechanical Properties

cold worked	soft	after firing		hardened
75% KV	1000°C/1h/Wasse r	2		2
135	95			
385 MPa	205 MPa			
385 MPa	105 MPa			
4.8 %	45.8 %			
	cold worked 75% KV 135 385 MPa 385 MPa 4.8 %	cold worked soft   75% KV 1000°C/1h/Wasse   r r   135 95   385 MPa 205 MPa   385 MPa 105 MPa   4.8 % 45.8 %	cold worked   soft   after firing     75% KV   1000°C/1h/Wasse   r     135   95   1000°C/1h/Wasse     385 MPa   205 MPa   1000°C/1h/Wasse     385 MPa   105 MPa   105 MPa     4.8 %   45.8 %   1000°C/1h/Wasse	cold worked   soft   after firing     75% KV   1000°C/1h/Wasse   r     135   95   1385 MPa     385 MPa   205 MPa     385 MPa   105 MPa     4.8 %   45.8 %

### 4. Handling

thermal treatements:		Up from 800°C recristallisation begins.
	-	This alloy could not be hardened.
Surface- conditioning:		For any thermal treatments, the surface would not change even under oxygen ambient. A surface treatment with acid washing should therefore not be necessary.
Remarks		Application/indications: PtIr3% is a highly corrosion resistant, biocompatible alloy with medium mechanical strength. It is suitable for use in the medical field.
		Processing: The alloy is easily cold worked and is suitable as a material for a micro-mechanical manufacturing.

## 5. Certification

Manufacture and delivery are constantly monitored according to the quality management system standard according to ISO 9001.

(5)

for: Ptlr3%

The data and specifications on this page are the results of controlled and well defined tests. The actual values may depend on the specific conditions.

# 6. Graphs



#### Cendres+Métaux SA

VI

Dr. Niklaus Baltzer Head of Materials Development



8. a

Dr. Flavio Campana Head of Material Testing

<u></u>				
Delevered OF 02 0014 0 00 01	 OULDA CULMED	(5)	5-m DH-00/	B

The data and specifications on this page are the results of controlled and well defined tests. The actual values may depend on the specific conditions.