

## Materials Data Sheet

### Conichrome<sup>®</sup>, Elgiloy<sup>®</sup>, Phynox<sup>®</sup> for Implants

#### ASTM F 1058-08 , ISO 5832-7

#### Chemical Composition

	Grade 1 (wt %)	Grade 2 (wt %)
Cobalt	39,0 - 41,0	39,0 - 42,0
Chromium	19,0 - 21,0	18,5 - 21,5
Nickel	14,0 - 16,0	15,0 - 18,0
Molybdenum	6,0 - 8,0	6,5 - 7,5
Manganese	1,5 - 2,5	1,0 - 2,0
Silicon	max. 1,200	max. 1,200
Carbon	max. 0,150	max. 0,150
Beryllium	max. 0,100	max. 0,001
Phosphorus	max. 0,015	max. 0,015
Sulfur	max. 0,015	max. 0,015
Iron	balance	balance

#### Physical Properties

Melting Range	1450 - 1460 °C
Density	8,3 g/cm <sup>3</sup>
Modulus of Elasticity	204 GPa

#### Mechanical Properties

Annealed	
Ultimate Tensile Strength	min 850 MPa
Yield Strength R <sub>p0,2</sub>	min 450 MPa
Fracture Elongation	min 40 %
Cold worked	
Ultimate Tensile Strength	min 1200 MPa
Yield Strength R <sub>p0,2</sub>	min 900 MPa
Fracture Elongation	min 10 %

#### Note

The mechanical Properties are only for orientation and can be changed if necessary.