

## Materials Data Sheet

### Cobalt Alloy Tubing L 605 for Implants

### ASTM F 90-09

#### Chemical Composition

	wt %
Chromium	19,00 - 21,00
Tungsten	14,00 - 16,00
Nickel	9,00 - 11,00
Manganese	1,00 - 2,00
Carbon	0,050 - 0,150
Sulfur	max. 0,030
Phosphorus	max. 0,040
Silicon	max. 0,400
Iron	max. 3,000
Cobalt	balance

#### Physical Properties

Melting Range	1410 - 1438°C
Density	9,2 g/cm <sup>3</sup>
Modulus of Elasticity	243 GPa

#### Mechanical Properties

##### Annealed

Ultimate Tensile Strenght	min. 860 MPa
Yield Strength R <sub>p0,2</sub>	min. 310 MPa
Fracture Elongation	min. 30 %

##### Cold worked

Ultimate Tensile Strenght	min. 1250 MPa
Yield Strength R <sub>p0,2</sub>	min. 760 MPa
Fracture Elongation	min. 15 %

#### Note

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