

Materials Data Sheet

Cobalt Alloy Tubing MP 35N for Implants

ASTM F 562-07

Chemical Composition

	wt %
Nickel	33,00 - 37,00
Chromium	19,00 - 21,00
Molybdenum	9,00 - 10,50
Titanium	max. 1,000
Silicon	max. 0,150
Boron	max. 0,015
Manganese	max. 0,150
Iron	max. 1,000
Carbon	max. 0,025
Phosphorus	max. 0,015
Sulfur	max. 0,010
Cobalt	balance

Physical Properties

Melting Range	1315 - 1440°C
Density	8,4 g/cm ³
Modulus of Elasticity	233 GPa

Mechanical Properties

Annealed

Ultimate Tensile Strength	793 MPa - 1070 MPa
Yield Strength $R_{p0,2}$	241 MPa - 586 MPa
Fracture Elongation	min. 50 %

Cold worked

Ultimate Tensile Strength	min. 1207 MPa
Yield Strength $R_{p0,2}$	min. 1000 MPa
Fracture Elongation	min. 10 %

Note

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