

CO-ALLOY MP35N TUBING FOR SURGICAL IMPLANTS

MP35N, ASTM F 562, Material Data

Chemical Composition

Carbon	_____	max. 0,025 wt.-%
Silicon	_____	max. 0,15 wt.-%
Manganese	_____	max. 0,15 wt.-%
Phosphorus	_____	max. 0,015 wt.-%
Sulfur	_____	max. 0,010 wt.-%
Chromium	_____	19,0 - 21,0 wt.-%
Nickel	_____	33,0 - 37,0 wt.-%
Iron	_____	max. 1,0 wt.-%
Molybdenum	_____	9,0 - 10,5 wt.-%
Titanium	_____	max. 1,0 wt.-%
Boron	_____	max. 0,015 wt.-%
Cobalt	_____	balance

Physical Properties

Melting point	_____	1315 - 1440° C
Density	_____	8,43 g/cm ³
Modulus of Elasticity	_____	233 x 10 ³ MPa

Mechanical Properties

	cold-worked	annealed
Ultimate Tensile Strength	min. 1000 MPa	min. 800 MPa
Yield Strength	min. 650 MPa	min. 250 MPa
Total Elongation	min. 7 %	min. 30 %

Microstructure in fully annealed condition

Austenitic Grain Size	_____	min. 7
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Comments

These values should only be used as guidelines for developing material specifications. Properties strongly depend on processing history. The values listed above are typical for uniaxial tension. Upon request, we can also deliver this material with other properties.