

Materials Data Sheet

Superelastic Nitinol Tubing ASTM F 2063-05 ASTM F 2633-07

Chemical Composition

	wt %
Nickel	54,50 - 57,00
Cobalt	max. 0,050
Iron	max. 0,050
Carbon	max. 0,050
Niobium	max. 0,025
Copper	max. 0,010
Chromium	max. 0,010
Oxygen + Nitrogen	max. 0,050
Hydrogen	max. 0,005
Titanium	balance

Physical Properties

Melting Point	1310°C
Density	6,5 g/cm ³
Specific el. Resistivity	82μΩcm
Coefficient of Thermal Expansion (CTE)	11 x 10 ⁻⁶ /°K
Modulus of Elasticity	41 - 75 GPa

Mechanical / Superelastic Properties

Ultimate Tensile Strength	min. 1000 MPa
Fracture Elongation	min. 10 %
Loading Plateau Stress (at 3% strain)	min. 380 MPa
Permanent Set (after 6% strain)	max. 0,3 %
Austenite Finish Temperature(Af)	max. 15°C

Note

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