

## TANTALUM TUBING FOR SURGICAL IMPLANTS

### ASTM F 560 R05200

#### Chemical Composition

Carbon	_____	max. 0,01 wt %
Oxygen	_____	max. 0,015 wt %
Nitrogen	_____	max. 0,01 wt %
Hydrogen	_____	max. 0,0015 wt %
Niob	_____	max. 0,1 wt %
Tantalum	_____	balance

#### Physical Properties

Melting point	_____	2996° C
Density at 20° C	_____	16,6 g/cm <sup>3</sup>
Linear coefficient of thermal expansion at 20° C	_____	6.4 x 10 <sup>-6</sup> m/(mK)
Electrical conductivity at 20° C	_____	8 x 10 <sup>-6</sup> [1 / (Ω m)]

#### Mechanical Properties (cold worked)

Ultimate Tensile Strength	_____	min. 482 MPa
Yield Strength	_____	min. 345 MPa
Elongation	_____	min. 1,0%

#### Microstructure in fully annealed condition

Grain Size	_____	not specified
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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.