

Specification

- Austenitic steel (Material number 1.4301, DIN X5CrNi1810, AISI number 304)
- Contains from 17.5 to 20 wt% chromium and has important quantities of nickel
- Non-magnetizable
- Good corrosion resistance to a wide range of atmospheric environments and many corrosive media
- Generally used where corrosion resistance and toughness are primary requirements
- Typical applications include tweezers for the electronic industry, screws, machinery parts and food-handling equipment



Composition

Component	Wt.%	Component	Wt.%	Component	Wt.%
C	≤0.08	Si	≤1.0	Mn	≤2.0
P	≤0.045	S	≤0.03	Cr	17.5-20.0
Mo	2.5-3.0	Ni	8.0-11.0		

Mechanical Properties

State	annealed
Density	8.0 g/cm ³
Hardness HB30	≤ 175
Hardness Rockwell B	84
Tensile strength, ultimate	600 MPa
Tensile strength, yield	330
0.2% Yield stress	≥ 290 MPa
Elongation, break	55%
Modulus of elasticity	193 GPa

Thermal Properties

Coef. of lin. therm expansion	16.0 E-6/°C	20°C-100°C
Coef. of lin. therm expansion	17.0 E-6/°C	20°C-300°C
Specific heat capacity	0.50 J/(g·K)	
Thermal conductivity	16 W/(m·K)	
Continuous use temperature	350°C	
Max service temperature, air	925°C	

Electrical Properties

Resistivity	0.72 E-4 Ohm.cm
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Tweezers

Pointed/Straight/Thick/Strong, 125 mm



Product Dimensions

Product OAL (mm - in)	125.00 - 4.921
Product width (mm - in)	11.00 - 0.433
Product height (mm - in)	11.00 - 0.433
Tip thickness A (mm - in)	0.15 - 0.006
Tip width B (mm - in)	0.20 - 0.008
Net weight (g-lb)	18 - 0.04
Tip opening gap (mm - in)	8.00 - 0.315

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