

# Stainless steel type SA

## General notes:

- » **Low carbon austenitic steel** (Material number 1.4435, DIN X2CrNiMo18-14-3, AISI number 316L)
- » contains from 16.5 to 18.5 wt% chromium and has important quantities of nickel and molybdenum as additional alloying elements
- » non-magnetizable (80%)
- » good corrosion resistance to most chemicals, salts and acids
- » generally used where corrosion resistance and toughness are primary requirements
- » typical applications include tweezers for the electronic industry, watch-makers, jewelers and laboratory and medical applications in moderately aggressive chemical environments

## Composition

Component	Wt.%	Component	Wt.%	Component	Wt.%
<b>C</b>	≤0.03	<b>Si</b>	≤1.0	<b>Mn</b>	≤2.0
<b>P</b>	≤0.045	<b>S</b>	≤0.03	<b>Cr</b>	17.0-19.0
<b>Mo</b>	2.5-3.0	<b>Ni</b>	12.5-15.0		

## Mechanical properties

State	<b>annealed</b>
Density	<b>8.0 g/cm<sup>3</sup></b>
Hardness, Vickers	<b>230 HV</b>
Tensile strength, ultimate	<b>500-700 MPa</b>
Tensile strength, yield	<b>290</b>
0.2% Yield stress	<b>≥ 200 MPa</b>
Elongation, break	<b>40%</b>
Modulus of elasticity	<b>200 GPa</b>

## Thermal properties

Coef. of lin. therm expansion	<b>16.0 E-6/°C</b>	20°C-100°C
Coef. of lin. therm expansion	<b>17.0 E-6/°C</b>	20°C-300°C
Specific heat capacity	<b>0.50 J/(g·K)</b>	
Thermal conductivity	<b>15 W/(m·K)</b>	
Continuous use temperature	<b>350°C</b>	
Max service temperature, air	<b>925°C</b>	

## Electrical properties

Resistivity	<b>0.75 E-4 Ohm.cm</b>
-------------	------------------------

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Soldering & Desoldering Stations](#) category:*

*Click to view products by [Ideal-Tek](#) manufacturer:*

Other Similar products are found below :

[GS1116](#) [WESD51D](#) [BH-010](#) [T0058768747](#) [CA0202](#) [CA0201](#) [WXD2N](#) [Q-7100-9000](#) [ALFA](#) [T0058757898](#) [WXD2010N](#) [T0058768762](#)  
[145-2000-ESDN](#) [T0058758721N](#) [0008473](#) [WTL1000-1](#) [700-3051-ESD](#) [0051514699N](#) [0051512199N](#) [T0058768725N](#) [ZD-415R](#) [ZD-415R-H](#)  
[WELPB102](#) [CVC-7CN0004P](#) [CVC-9CH0025S](#) [CVC-8CH0010S](#) [CV-H5-DSHP](#) [AP-SF](#) [AT-SA](#) [AT-SB](#) [DN-SF](#) [DR-SF](#) [DS-SF](#) [HD-SF](#)  
[0016344](#) [00B.SA.0](#) [0120CDK](#) [0551903](#) [0DIG20A45](#) [0IC1100A](#) [0ICV2000XV](#) [0T56](#) [PX0410/03P/5055](#) [RA150](#) [10G.SA.0](#) [36A.SA](#) [3C.SA](#)  
[3.TA](#) [AT850D/P](#) [TMT-HA300](#)