

TECHNICAL DATA SHEET

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
- » 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. %
C	≤0.03	Si	≤1.0	Mn	≤2.0
P	≤0.045	S	≤0.03	Cr	17.0-19.0
Mo	2.5-3.0	Ni	12.5-15.0		

Mechanical properties

State	annealed
Density	8.0 g/cm³
Hardness HB30	≤ 215
Hardness Rockwell B	79
Tensile strength, ultimate	500-700 MPa
Tensile strength, yield	290
0.2% Yield stress	≥ 200 MPa
Elongation, break	40%
Modulus of elasticity	200 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	15 W/(m·K)	
Continuous use temperature	350°C	
Max service temperature, air	925°C	

Electrical properties

Resistivity	0.75 E-4 Ohm.cm
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This document contains information based on average values as obtained from the results of laboratory tests and observations made on the material. Ideal-Tek SA declines all responsibility from an improper use of the product described in this document.

TECHNICAL DATA SHEET

Industrial coating type T

General notes:

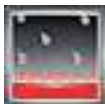
- » This **solvent-based liquid Teflon® coating** is formulated with special blends of fluoropolymers and other high-performance resins to improve toughness and abrasion resistance


Nonstick

Very few solid substances will permanently adhere to a Teflon® finish. Although tacky materials may show some adhesion, almost all substances release easily


Low coefficient of friction

The coefficient of friction of this Teflon® coating is generally in the range of 0.20 to 0.25, depending on the load, sliding speed, and particular Teflon® coating used


Nonwetting

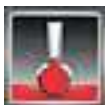
Since surfaces coated with Teflon® are both oleophobic and hydrophobic, they are not readily wetted. Cleanup is easier and more thorough — in many cases, surfaces are self-cleaning


Heat resistance

Can operate continuously at temperatures up to 150°C and can be used for intermittent service up to 200°C


Unique electrical properties

Over a wide range of frequencies, Teflon® has high dielectric strength, low dissipation factor, and very high surface resistivity


Cryogenic stability

Many Teflon® industrial coatings withstand severe temperature extremes without loss of physical properties. Teflon® industrial coatings may be used at temperatures as low as -270°C/-454°F


Chemical resistance

Teflon® is normally unaffected by mild chemical environments. It has good resistance to diluted acids, diluted and concentrated alkalis and organic solvents

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