

**TECHNICAL DATA SHEET**

# Stainless steel type 410

**General notes:**

- » **Martensitic higher carbon steel** (Material number 1.4021, AISI number 410)
- » The grade is basically an iron chromium alloy
- » Magnetizable
- » Good formability and ductility
- » It is a martensitic grade which exhibits good mechanical properties coupled with good corrosion resistance.
- » typical applications include tweezers and cutting tools for the electronic industry, watch-makers, jewelers and laboratory and medical applications in mild aggressive chemical environments

## Composition

Component	Wt. %	Component	Wt. %	Component	Wt. %
<b>C</b>	≤0.15	<b>Si</b>	≤1.0	<b>Mn</b>	≤2.0
<b>P</b>	≤0.025	<b>S</b>	≤0.025	<b>Cr</b>	11.5-13.5

## Mechanical properties

Density	<b>7.70 Kg/dm<sup>3</sup></b>
Tensile strength, ultimate	<b>586-655 MPa</b>
0.2% Yield stress	<b>≥420 MPa</b>
Modulus of elasticity	<b>200 GPa</b>

## Thermal properties

Coef. of lin. therm expansion	<b>10.5 E-6/°C</b>	20°C-100°C
Coef. of lin. therm expansion	<b>11.5 E-6/°C</b>	20°C-300°C
Specific heat capacity	<b>0.46 J/(g K)</b>	20°C
Thermal conductivity	<b>30 W/(m K)</b>	20°C

## Electrical properties

Resistivity	<b>0.06 E-6 Ohm.m</b>
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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 declines all responsibility from an improper use of the product described in this document.