

### Standards

Material No.	EN Designation	AISI/SAE	UNS
1.4541	X6CrNiTi18-10	321	S32100

### Description

1.4541 / AISI 321 is an austenitic chromium-nickel-stainless steel, stabilized with titanium.

### Special properties

Good corrosion resistance to low content of hydrochloric and organic acids.

### Chemical Composition

C %	Si ≤ %	Mn ≤ %	P ≤ %	S ≤ %
≤ 0.08	1.00	2.00	0.045	0.015
Cr %	Ni %	Ti ≤ %		
17.0-19.0	9.00-12.0	5xC		

### Mechanical Properties 20°C

Hardness HB 30 ≤ HB	0.2% Yield strength R <sub>0.2</sub> ≥ N/mm <sup>2</sup>	Tensile strength R <sub>m</sub> N/mm <sup>2</sup>	Elongation A <sub>5</sub> ≥ %	Modulus of elasticity kN/mm <sup>2</sup>
215	190	500-700	40/30	200

### Physical Properties 20°C

Density g/cm <sup>3</sup>	Specific heat capacity J/kg K	Thermal conductivity W/m K	Electrical resistivity Ω mm <sup>2</sup> /m
7.9	500	15	0.73

### Suitable welding filler materials

1.4316; 1.4551; 1.4576

### Application

Foodstuff industry

### Available forms for 1.4541 / AISI 321

Sheets/Plates	Bars	Wire	Tubes/Pipes	Fittings	Forged / cast parts	Finished part (drawing)
						