



Grade	Code	AISI	Austenitic Stainless Steel
1.4541	X6CrNiTi18-10	321	

### Steel Properties

The 1.4541 is a chrome-nickel stainless steel with addition of titanium with increased hardness, elasticity, maintaining non-magnetic properties, resistance to intergranular corrosion and increased temperatures. It is worth mentioning about the very good impact strength maintained at low temperatures, sufficient ductility of the materials, as well as increased resistance to pitting and crevice corrosion due to the content of titanium in the chemical composition.

### Chemical Composition (1.4541)

C %	P %	Si %	Mn %	S %	Cr %	Mo %	Ni %	Ti %	W %
0,08 max.	0,045 max.	1,00 max.	2,00 max.	0,03 max.	17,00 – 19,00	-	9,00 – 12,00	0,07 max.	-

### Mechanical Properties

Rp0.2, Mpa	Rm, Mpa	Elongation [%]	Hardness [HB]
≥190	500 – 700	≥ 30	< 215

### Suitable For

AISI 321 is used in the chemical, food, cryogenic, nitric, aerospace, paper and fuel industries for pressure vessels, liquid installations, tanks, pipelines, fittings, components of equipment and machinery in food processing, silos and tanks for the production of chemical compounds, radiators, heat exchangers, corrosion-resistant springs, parts requiring increased strength in structures, and autoclaves.

### Remarks

AISI 321 is distinguished by its good weldability.

### Specification

AISI 321, 1.4541, X6CrNiTi18-10