

Code	X5CrNiCuNb16-4
US standard (AISI)	630
Composition Alloying components [%]	<ul style="list-style-type: none"> ■ C: 0 - 0.07 ■ Cr: 15.00 - 17.00 ■ Cu: 3.00 - 5.00 ■ Mn: 0 - 1.50 ■ Mo: 0 - 0.60 ■ Ni: 3.00 - 5.00 ■ P: 0 - 0.04 ■ S: 0 - 0.015 (0.030*) ■ Si: 0 - 0.70 ■ Nb: 5 x C - 0.45 ■ Remainder: Fe
Stainless steel grade	C3
Density [g/cm ³]	7.8
Nickel migration [µg/(cm ² x week)] in artificial perspiration (pH 4.5)	<0.05
Yield point Rp0.2 [N/mm ²]	≥1000
Tensile strength Rm [N/mm ²]	≥1270
Corrosion resistance	<ul style="list-style-type: none"> ■ Good ■ Resistant to all natural environmental conditions and quiet seawater
Machinability	medium - poor
Weldability	good
Other properties	<ul style="list-style-type: none"> ■ Martensitic ferromagnetic structure that is particularly strong after precipitation hardening ■ Cannot be mechanically polished with satisfactory results ■ Suitability for electropolishing: medium ■ For use in the temperature range -50 - 450°C
Main uses	<p>1.4542 is used when high levels of strength are required in combination with good corrosion resistance:</p> <ul style="list-style-type: none"> ■ Bolts/screws ■ Spindles, axles ■ Hub plates ■ Shipbuilding equipment ■ Offshore equipment ■ Aerospace