

Code	X10CrNi18-8
US standard (AISI)	301
Composition Alloying components [%]	<ul style="list-style-type: none"> ■ C: 0.05 - 0.15 ■ Cr: 16.00 - 19.00 ■ Mn: 0 - 2.00 ■ Mo: 0 - 0.80 ■ N: 0 - 0.10 ■ Ni: 6.00 - 9.50 ■ P: 0 - 0.045 ■ S: 0 - 0.015 ■ Si: 0 - 2.00 ■ Remainder: Fe
Stainless steel grade	A2
Density [g/cm ³]	7.9
Nickel migration [µg/(cm ² x week)] in artificial perspiration (pH 4.5)	<0.5
Yield point Rp0.2 [N/mm ²]	≥195
Tensile strength Rm [N/mm ²]	500 - 750
Corrosion resistance	<ul style="list-style-type: none"> ■ Good ■ Solution annealed for resistance to intergranular corrosion ■ Optimum resistance when polished
Machinability	medium
Weldability	very good
Other properties	<ul style="list-style-type: none"> ■ Metastable austenitic structure that work-hardens very well during cold working, giving it the necessary material properties for manufacturing spring elements ■ Can be mechanically polished to a brilliant sheen ■ Suitability for electropolishing: very good ■ In the work-hardened state, it is stable up to 300°C provided that there is no change in structure
Main uses	<p>Main area of application:</p> <ul style="list-style-type: none"> ■ Corrosion-resistant springs (up to 300°C) <p>General applications involving medium levels of corrosive stress:</p> <ul style="list-style-type: none"> ■ Automotive industry ■ Chemical industry ■ Tools ■ Food industry