

Code	X10CrNiS18-9
US standard (AISI)	303
Composition Alloying components [%]	<ul style="list-style-type: none"> ■ C: 0 - 0.10 ■ Cr: 17.00 - 19.00 ■ Cu: 0 - 1.0 ■ N: 0 - 0.10 ■ Ni: 8.00 - 10.00 ■ Mn: 0 - 2.00 ■ P: 0 - 0.045 ■ S: 0.150 - 0.350 ■ Si: 0 - 1.00 ■ Remainder: Fe
Stainless steel grade	A1
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]	≥190
Tensile strength Rm [N/mm ²]	500 - 700
Corrosion resistance	<ul style="list-style-type: none"> ■ Medium ■ Lower resistance than 1.4301 due to the addition of sulphur ■ Not resistant to intergranular corrosion
Machinability	very good
Weldability	poor (friction welding possible)
Other properties	<ul style="list-style-type: none"> ■ Austenitic non-magnetic structure with sulphur added for good machinability ■ Moderately suitable for mechanical polishing ■ Suitability for electropolishing: medium ■ For use at temperatures up to 500°C ■ Not suitable for prolonged skin contact due to the high nickel migration rate
Main uses	<p>Predominantly used for turned parts that are subject to medium levels of corrosive stress in the following sectors:</p> <ul style="list-style-type: none"> ■ Automotive industry ■ Fittings ■ Food industry ■ Kitchen equipment and decorative parts ■ Machine and plant construction