

STAINLESS STEEL AISI 304

DIN X5CrNi18-10	En Nr. 1.4301	UNS (ASTM) S30400	AISI 304						
Chemical composition (Weight %)	Fe Balance	C < 0.07	Cr 17.0-19.5	Ni 8.0-10.5	Si ≤ 1.0	Mn ≤ 2.0	P ≤ 0.045	S ≤ 0.015	N ≤ 0.110
Main technological properties	<p>Austenitic stainless steels are amongst the most popular and most widely used of the stainless steel family. They have a chromium content of around 17% and comprise nickel and possibly other additives such as molybdenum, titanium or niobium. It is the nickel content which enables the austenitic structure that supports corrosion resistance. In fact, the absence of a second phase, such as strain induced martensite or ferrite promotes the corrosion resistance. Austenitic stainless steel 1.4301 is very widely used because of its excellent intercrystalline corrosion resistance, very good cold deformability, good deep drawing capability and its good aptitude for welding. The 1.4301 preserves its excellent corrosion resistance up to 300°C but can also be used at very low temperatures for cryogenic applications. In the soft temper, alloy 1.4301 is practically non-magnetic. The work hardening effect during cold deformation is rather weak. For example, it does not reach the spring properties of stainless steel 1.4310.</p>								
Typical dimensions	Thickness (mm)		Width (mm)		Length (mm)				
	Strip in coil		-		-				
	Strips in sheet		0.30-1.20		1000		2000		
Mechanical properties	Temper 1/2hard		Rm (N/mm ²) 950-1150		Rp (N/mm ²) A50mm (%)		Hv 250-390		
Color	gray								
Typical usage	<p>AISI 304 is mainly used for the</p> <ul style="list-style-type: none"> ✓ chemical industry ✓ cutlery ✓ watches and clocks ✓ medical devices, appliances 								
Surface	Special surface qualities upon request (2B or BA - mirror)								
Flatness	Special requirement on the longitudinal or transversal flatness upon request								

