STAINLESS STEEL

304 - 1.4301 / 304L - 1.4307



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304 and 304L are both grades of austenitic stainless steel, which is the most widely used type of stainless steel. These grades are very similar, known for their versatility and corrosion resistance, with the main difference being the carbon content. The use of 304L is often preferred in situations where welding is a significant consideration due to its improved weldability and reduced susceptibility to sensitivity.

KEY FEATURES

- Corrosion resistance
- Forming and welding characteristics
- Oxidation resistance

CHEMICAL PROPERTIES

	Chromium	Nickel	Manganese	Silicone	Nitrogen	Carbon	Phosphorus	Sulphur
	(Cr)	(Ni)	(Mn)	(Si)	(N)	(C)	(P)	(S)
304	18-20%	8-11%	2%	1%	0.1%	0.08%	0.045%	0.03%
304L	18-20%	8-11%	2%	1%	0.1%	0.035%	0.045%	0.03%

MECHANICAL PROPERTIES

	304	304L
Tensile strength (N/mm ²)	500-700	500-700
Yield strength (N/mm ²)	170-220	170-220
Elongation (% in 4D)	40	40
Hardness - Rockwell (HRB) max	92	92
Hardness - Brinell (HB) max	201	201

PHYSICAL PROPERTIES

Density (kg/m ³)	8000	
Modulus of elasticity (Gp	193	
	0-100°C (µm/m/°C)	17.2
Mean coefficient of	0-350°C (µm/m/°C)	17.8
thermal expansion	0-538°C (µm/m/°C)	18.4
Thermal	at 100°C (W/m.K)	16.2
conductivity	at 500°C (W/m.K)	21.5
Specific Heat 0-100°C (J	500	
Electrical resistivity (nΩ.	720	
Melting point (°C)	1450	

MARKET SECTORS

Architectural

Applications

Pharmaceutical

Industry

Handrails, architectural trim,

structural components

Surgical instruments,



conveyor systems





Storage tanks, vessels for chemicals, piping systems



Countertops, sinks, ovens refrigerators, dishwashers



Fasteners, bolts, processing equipment, storage valves, fittings



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