

# 304 / 304L Stainless

**AUSTENITIC STAINLESS STEEL** 

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## **Key Features**

- 18% chrome and 8% nickel content
- Can be welded by traditional techniques
- Reasonable machinability
- Good drawability

## **Product Overview**

Type 304 stainless steel provides lower carbon content which minimises chromium carbide precipitation due to welding and its susceptibility to intergranular corrosion.

It is an austenitic alloy which contains 8% nickel and 18% chrome. Type 304 benefits from reasonable machinability, while weldability and forming characteristics are excellent. The formulation of complex shapes is possible due to the alloy's low yield strength and high elongation. The product also benefits from very good drawability. Type 304L is the low-carbon version of 304 and does not require post-weld annealing and so finds extensive use in heavy gauge components (over 6mm).

# **Applications**

- Springs, nuts, bolts & screws
- Chemical equipment
- Pharmaceutical
- Sinks and splash-backs

#### \* Chemical Composition (weight, %)

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	С	Cr	Mn	Si	Р	S	Ni	N	Fe
Min.		17.50					8.00		
Max.	0.07	19.50	2.00	1.00	0.045	0.030	10.50	0.10	Bal

<sup>\*</sup> Properties as per BS EN 10088-3, 1.4301

#### \* Mechanical Properties

Tensile strength	500 - 700	) MPa
Proof Stress	190 min	MPa
Elongation A5	45 min	%

<sup>\*</sup> Properties as per BS EN 10088-3, 1.4301 (sizes up to 160mm)

### **Physical Properties**

Density	8.00	kg/m³	
Melting Point	1450	°Č	
Modulus of Elasticity	193	GPa	
Electrical Resistivity	0.072	x10 <sup>-6</sup> Ω.m	
Thermal Conductivity	16.2	W/m.K	
Thermal Expansion	17.2	x10 <sup>-6</sup> /K	



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