

SS 304 / 304L Stainless Steel – Technical Data Sheet

SS 304 and 304L Stainless Steel are the most versatile and widely used austenitic stainless steel grades. They offer excellent corrosion resistance, good formability, and outstanding weldability, making them ideal for a broad range of applications in various industries.

What is SS 304 Stainless Steel?

SS 304 is an austenitic stainless steel containing 18% chromium and 8% nickel. It provides good corrosion resistance in mild environments and is non-magnetic in the annealed condition.

What is SS 304L Stainless Steel?

SS 304L is the low carbon version of SS 304. The lower carbon content (max 0.030%) minimizes carbide precipitation during welding, making it suitable for heavy gauge welded components.

Key Features

- Excellent corrosion resistance in mild environments
- Superior formability and weldability
- Good mechanical properties
- Non-magnetic in annealed condition
- Excellent hygiene and cleanability
- Cost-effective and versatile
- Long service life with low maintenance

Technical Data Sheet – SS 304 Stainless Steel

Property	Value
UNS Designation	S30400
Density	8.00 g/cm ³
Tensile Strength	515 MPa (Min)
Yield Strength	205 MPa (Min)
Elongation	40% (Min)
Hardness	201 HB (Max)
Melting Range	1400°C – 1450°C
Common Standards	ASTM A240, ASTM A276, ASTM A312, ASTM A479

Technical Data Sheet – SS 304L Stainless Steel

Property	Value
UNS Designation	S30403
Density	8.00 g/cm ³
Tensile Strength	485 MPa (Min)
Yield Strength	170 MPa (Min)
Elongation	40% (Min)
Hardness	201 HB (Max)
Melting Range	1400°C – 1450°C
Common Standards	ASTM A240, ASTM A276, ASTM A312, ASTM A479

Typical Applications

Food processing equipment, kitchen equipment, chemical containers, architectural panels, pharmaceutical equipment, marine environments (mild), heat exchangers, and general fabrication.

Available Product Forms

Sheets, plates, coils, pipes, tubes, round bars, flat bars, angles, channels, fittings, fasteners, and custom components.

Why Choose SS 304 / 304L Stainless Steel?

These grades offer the perfect balance of performance and affordability. Their versatility makes them the go-to material for countless industrial and commercial applications worldwide.

Conclusion

SS 304 / 304L Stainless Steel remains one of the most popular and reliable stainless steel grades due to its excellent all-round properties, ease of fabrication, and proven performance across diverse applications.