

AISI 304,304L Stainless Steel Sheet Plate

General Characteristics:

Austenitic stainless steel ASTM a240 type 304 is the most widely used and versatile grade, and it has high corrosion resistance, formability, deep drawability, and weldability. A lower carbon variant of 304, 304L, provides good resistance to intergranular corrosion. Because of this, [304L sheet plate](#) may be widely utilised in the welded state and does not need any post-weld heat treating. A high carbon version of the 304 grade with greater strength above 450°C is 304H. The nitrogen-enhanced version of 304L is 304LN. Nitrogen considerably outperforms 304L in terms of yield and tensile strength due to solid solution strengthening, with no negative effects on ductility, corrosion resistance, or non-magnetic characteristics.

SS 304 Sheet Plate Mechanical Properties:

Grade	Mechanical properties	UTS (MPa)	YS (MPa)	%EL	Hardness (HRB)
304	ASTM A240	≥ 515	≥ 205	≥ 40	≤ 92
304L	ASTM A240	≥ 485	≥ 170	≥ 40	≤ 92
304H	ASTM A240	≥ 515	≥ 205	≥ 40	≤ 92
304LN	ASTM A240	≥ 515	≥ 205	≥ 40	≤ 95

304 Stainless Steel Sheet Plate Physical Properties:

Modulus of elasticity (GPa)	Density (Kg/m ³)	Electrical resistivity (μΩm)	Thermal conductivity (W/m°C)	Thermal Expansion Co-efficient (μm/m /°C)
195	7910	0.72	16.3	17.3

SS 304 Sheet Plate Chemical Properties:

ASTM		%C	%Mn	%S	%P	%Si	%Ni	%Cr	%N
304	Min	--	--	--	--	--	8.0	17.5	--
	Max	0.07	2.00	0.030	0.045	0.75	10.5	19.5	0.10
304L	Min	--	--	--	--	--	8.0	17.5	--
	Max	0.030	2.00	0.030	0.045	0.75	12.0	19.5	0.10
304H	Min	0.04	--	--	--	--	8.0	18.0	--
	Max	0.10	2.00	0.030	0.045	0.75	10.5	20.0	--
304LN	Min	--	--	--	--	--	8.0	18.0	0.10
	Max	0.030	2.00	0.030	0.045	0.75	12.0	20.0	0.16

Corrosion Resistance:

These grades display outstanding resistance to a variety of atmospheres and corrosive agents, including petroleum, food, pharmaceuticals, and textiles, and others.

Products available:

Hot Rolled Plates & Coil, Cold Rolled Coil & Sheets

Applications:

304- Transportation, petrochemical, chemical, and fertilizer industries; dairy, food processing, pharmaceutical industries; hospital equipment; cryogenic vessels; household items such as utensils and appliances; heat exchangers; machinery in the

paper, pulp, textile, and beverage industries; and architectural applications such as panels, curtain walls, roofing, etc.

304H- Fertilizer and chemical factories may also have petroleum refineries, boilers, heat exchangers, condensers, pipelines, cooling towers, steam exhausts, and electricity generation centers.

304L- Process equipment for the mining, chemical, cryogenic, food, dairy, and pharmaceutical industries. Tanks and containers for a wide range of liquids and solids.

304LN- Heat exchanger, railroad carriages, pressure vessels, flanges, and valves, chemical, food, petroleum, fabrication, and nuclear industries

For more details visit: [Stainless Steel 304 Sheets Plate Stockist](#)

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