

304 STAINLESS STEEL SHEET

304 is in the "Austenitic" group (or chrome-nickel) series of stainless steels. It is not hardenable by heat-treatment and it is not magnetic in the annealed condition, which is the general method of production. Hardness is accomplished by cold-working, which may create some magnetism.

Tougher and more ductile than most ordinary steels, 304 (and other austenitic grades), also has excellent mechanical properties and weldability, good corrosion resistance and excellent scale resistance.

In general, stainless steel is defined as a steel alloy with a minimum of at least 10% chromium, plus other elements, especially nickel. It is also been referred to as a corrosion-resistant steel (or "CRES"), particularly in the aviation/aerospace industry.

304 Stainless Steel Chemical Analysis

	C (max)	Mn (max)	P (max)	S (max)	Si (max)	Cr	Ni	Cu (max)	Mo (max)
304	.08	2.00	.045	.03	.75	18.00/20.00	8.00/10.50	.75	.75

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AED stocks SS 304 sheets primarily with the #4 or P4 brushed polish finish (this has brush lines; it is not polished like a mirror). The mirror-type appearance is a #8 polish finish, and it may be available on special request (full sheets only). Sheet sizes may be 48" x 96" or 48" x 120", depending on availability.

The best pricing is always when you order full sheets, which can be cut for economical shipping methods. AED also offers "cut-to-size" pieces.

SS 304 sheets are produced in the Annealed Condition, and may meet several specifications including ASTM A240, but several others may also apply.

304 Sheet Typical Mechanical Properties:

Annealed Condition

	304
Tensile Strength (psi)	75,000
Yield Strength (psi)	30,000
Elongation (% in 2")	40
Rockwell B Hardness	85

Note: "Typical Mechanical Properties" have been compiled from a variety of sources. Information is deemed reliable, but it is not guaranteed. This data is provided for information only, **NOT FOR DESIGN PURPOSES.**