

AISI 430 Stainless Steel Sheet Plate

General Characteristics:

430 alloy is the most commonly used ferritic stainless steel containing 16% minimum Chromium. It exhibits good corrosion resistance in mildly corrosive environments and good oxidation resistance at elevated temperatures. [Grade 430 sheet plates](#) is ductile in annealed condition, does not work harden excessively during cold work and can be formed using a variety of roll forming or mild stretch forming operations as well as the more common deep drawing and bending processes. This alloy is magnetic in all conditions and is generally not susceptible to stress corrosion cracking. ASTM a240 type 430 displays excellent polishing characteristics and is therefore extensively used in applications such as architectural appliances and other surface critical applications.

SS 430 Sheet Plate Chemical Properties:

Designation		%C	%Mn	%S	%P	%Si	%Ni	%Cr
UNS S43000	Min	--	--	--	--	--	--	16.0
	Max	0.12	1.00	0.030	0.040	1.00	0.75	18.0

430 Stainless Steel Sheet Plate Physical Properties:

Modulus of Elasticity (GPa)	Density (kg/m ³)	Specific Heat (J/Kg°K)	Electrical resistivity (μΩm)	Thermal conductivity (W/m°C)	Co-efficient of Thermal Expansion (μm/m /°C)
200	7700	460	600	25.9	10.3

SS 430 Sheet Plate Mechanical Properties:

Mechanical properties	UTS (MPa)	YS (MPa)	%EL	Hardness
ASTM A240 - UNS S43000	450 min	205 min	22 min	89 HRB max

Products available:

Hot Rolled Plates & Coil, Cold Rolled Coil & Sheets

Applications:

- Decorative Panels
- Home appliances: Dish Washers, Washing Machine, Sinks, Refrigerator
- Automotive trims

Corrosion Resistance:

Grade 430 has excellent corrosion resistance to a wide variety of corrosive media including nitric acid and many organic and food acids. Being ferritic, stress corrosion cracking resistance of this alloy is very high and may be used where 304 stainless steel might fail under this condition. However, this grade does not provide the same resistance to pitting in chloride and acid containing media that is provided by austenitic stainless steels with higher chromium content.

Oxidation Resistance:

Because of its more than 16% chromium content, the alloy provides good resistance to oxidation up to 8750C for intermittent service, and up to 7400C for continuous service. Because of its low thermal

expansion, the scale formed is tightly adherent and not easily shed during sudden temperature changes.

Formability:

Grade 430 is readily cold formed by the standard methods such as bending, deep drawing, contour forming, etc. Compared to the austenitic grades, 430 steel has a low work hardening rate, which is reflected in its low elongation and consequently this grade is less appropriate for stretch forming applications than austenitic grades. However, the low work hardening of the type 430 is favorable in compressive forming (extrusion, cold stamping, upsetting, coin and spinning). In pure deep drawing 430 grade can even surpass the performance of 304 grade.

For more details visit : [Stainless Steel 430 Sheets Plate Stockist](#)

Related Searches:

ss 430 chemical composition pdf
ss 430 equivalent material
ss 430 grade
430 ss data sheet
ss 430 material properties
ss 430 price
ss 430 mechanical properties
ss 430 sheet price
430 ss material data sheet