STAINLESS STEEL
430

HAMILTON PRECISION METALS / AMETEK SPECIALTY METAL PRODUCTS

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SS 430 (UNS S43000)

SS 430 is a corrosion and heat resistant ferritic Chromium Steel. It can be polished to appear similar to Chromium plate. The material is magnetic in both annealed and cold rolled tempers.

GENERAL INFORMATION

The alloy can be readily blanked and formed. The material can be resistance welded, brazed, and soldered. SS 430 is resistant to atmospheric corrosion and fresh water, but it not resistant to most salts and sea water. It is resistant to scaling by oxidation up to about 1400°F.

AVAILABILITY

SS 430 is available from Hamilton Precision Metals as strip product in thicknesses from 0.001" to 0.050" (0.0254 mm to 1.27 mm) in widths up to 12.0" (304.8 mm). The material conforms to ASTM A240, FED QQS 766, and UNS S43000.

Technical Data

TYPICAL MECHANICAL PROPERTIES[1]		
	ANNEALED	COLD ROLLED
Ultimate Tensile Strength	75,000 PSI	145,000 PSI
Yield Strength (0.2% Offset)	45,000 PSI	135,000 PSI
Elongation in 2" *	30%	1%
Modulus of Elasticity (Tension)	29 x 10^6 PSI	
Poisson's Ratio	0.27	

*The measured elongation will be less as thickness decreases to 0.002" and less.

[1] These values may be adjusted by control of process variables – consult HPM for desired values.

NOMINAL COMPOSITION	
Chromium	16.3%
Manganese	0.45%
Silicon	0.40%
Nickel	0.2%
Carbon	0.04%
Iron	Balance

PHYSICAL PROPERTIES [2]	
Density	0.28 lbs/cu.in.
Melting Point (Approx.)	1425°C
Electrical Resistivity @ R.T.	60 Microhm · cm
Temperature Coefficient of Resistivity (TCR) (0° to 100°C)	10.5 x 10^{-6}/°C
Thermal Conductivity @ 100°C	26.1 W/m · K
Magnetic Permeability	800
Magnetic Attraction	Yes

[2] Typical values to guide alloy selection but are not a guarantee of minimum or maximum.

Disclaimer: The information contained within this data sheet is for guidance only and is not intended for warranty of individual application - express or implied.