Hamilton Precision Metals
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TECHNICAL DATA SHEET

SS 430

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.

NOMINAL COMPOSITION:

Chromium	16.3%	Nickel	.2%
Manganese	.45%	Carbon	.04%
Silicon	.40%	Iron	Balance

TYPICAL MECHANICAL PROPERTIES:[1]

	ANNEALED	COLD ROLLED
Ultimate Tensile Strength	75,000 PSI	145,000 PSI
Yield Strength (.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 .002" and less.

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

SS 430

PHYSICAL PROPERTIES:[2]

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

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 .001" to .050" in widths up to 12.0". The material conforms to ASTM A240, FED QQS 766, and UNS S43000.

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