



Hamilton Precision Metals
1780 Rohrerstown Road, Lancaster, PA 17602
Phone: (717) 569-7061 Fax: (717) 569-7642

TECHNICAL DATA SHEET

SS 436

SS 436 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. This grade of ferritic stainless steel has shown a greater resistance to ridging or roping defects as compared to type 430 stainless steel.

NOMINAL COMPOSITION:

Chromium	17.3%	Nickel	0.30%	Molybdenum	1.0%
Manganese	0.30%	Carbon	0.01%	Iron	Balance
Silicon	0.30%	Titanium	0.30%		

TYPICAL MECHANICAL PROPERTIES:¹

	<u>ANNEALED</u>	<u>COLD ROLLED</u>
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	

*The measured elongation will be less as thickness decreases to .004" and less.

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

SS 436

PHYSICAL PROPERTIES:²

Density	-	0.28 lbs/cu.in.
Melting Point (Approx.)	-	1425° C
Electrical Resistivity @ R.T.	-	67 Microhm· cm
Thermal Expansion Coefficient (0° to 100°C)	-	9.3 x 10 ⁻⁶ /°C
Thermal Conductivity @ 100°C	-	21 W/m· K
Magnetic Permeability	-	400 - 700
Magnetic Attraction	-	Yes

GENERAL INFORMATION:

The alloy can be readily blanked and formed. The material can be resistance welded, brazed, and soldered. SS 436 is resistant to atmospheric corrosion and fresh water, but it not resistant to most salts and seawater. It is resistant to scaling by oxidation up to about 1400°F.

AVAILABILITY:

SS 436 is available from Hamilton Precision Metals as strip product in thicknesses from 0.001” to 0.050” in widths up to 15.0”. The material conforms to ASTM A240 and UNS S43600.

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