MW Components

Stainless Steel 430 Fact Sheet

Do you need custom fasteners created with Stainless Steel 430? Since our inception, Elgin Fastener Group has met every challenge of providing Quality, Timely, Cost-effective solutions for specialty fastener applications. Every product is built to your specifications, using your prints if necessary.

Below are the technical specifications of the Stainless Steel 430 Bar Stock we have available to meet your needs.

AK Steel Ferritic Stainless steel 430

Subcategory: Metal; Stainless Steel; T 400 Series Stainless Steel; Ferritic

Close Analogs: Iron content calculated as remainder

Component	Wt. %
C	Max 0.12
Cr	16 - 18
Fe	Min 79.31
Mn	Max 1
Ni	Max 0.5
P	Max 0.04
S	Max 0.03
Si	Max 1

Material Notes:
AK Steel 430 combines good corrosion resistance and heat and oxidation resistance up to 1500°F with good mechanical properties. Typical consumer applications include automotive trim and molding, furnace combustion chambers, dishwashers, range hoods, gas burners, gutters, steam iron bases and flatware. Industrial applications range from interior architectural applications to nitric acid plant equipment.

Information provided by AK Steel

Physical Properties	Metric	English	Comments
Density	7.74 g/cc	0.28 lb/in³	
Mechanical Properties			
Hardness, Rockwell B	85	85	
Tensile Strength, Ultimate	483 MPa	70100 psi	
Tensile Strength, Yield	310 MPa	45000 psi	0.2% YS

Elongation at Break	25 %	25 %	in 2 inches
Modulus of Elasticity	200 GPa	29000 ksi	
Electrical Properties			
Electrical Resistivity	6e-005 ohm-cm	6e-005 ohm-cm	
Thermal Properties			
CTE, linear 20°C	10.4 µm/m-°C	5.78 µin/in-°F	0 to 100°C
CTE, linear 20°C	11.4 µm/m-°C	6.33 µin/in-°F	to 538°C
Heat Capacity	0.46 J/g-°C	0.11 BTU/lb-°F	0°C to 100°C
Thermal Conductivity	26.1 W/m-K	181 BTU-in/hr-ft²-°F	100°C
Thermal Conductivity	26.3 W/m-K	183 BTU-in/hr-ft²-°F	500°C