

430 Stainless

Technical Datasheet



Service. Quality. Value.

Ferritic Stainless Steel Alloy

Typical Applications

- Cabinet hardware
- Automotive trim
- Hinges
- Drawn and formed parts
- Stampings
- Refrigerator cabinet panels

Product Description

Type 430 is a ferritic stainless steel alloy which offers good corrosion resistance and is particularly resistant to nitric acid, making it a very useful material in chemical applications. The corrosion resistance qualities are good, but they are not as good as the austenitic grades 301, 302 and 304. The alloy benefits from good formability and is readily weldable although not suitable for rigorous service. Machinability is also good although there is a possibility of galling. Type 430 stainless steel is commonly used in the production of domestic appliances and is also used in the automotive sector for trim parts.

Key features

- Ferritic stainless steel.
- Good corrosion resistance.
- Resistant to nitric acid.
- Good formability.

Machinability

Very good machinability, though galling a possibility.

Weldability

Readily weldable but not suitable for rigorous service.

Availability

Round bar, plate and sheet

Corrosion resistance

Good corrosion resistance

Chemical Composition (weight %)

	C	Cr	Mn	Si	P	S	Fe		
min		16.00					Bal		
max	0.08	18.00	1.00	1.00	0.04	0.02	Bal		

Mechanical Properties

Tensile strength	450 - 600	MPa
Proof Stress	240 min	MPa
Elongation A5	20	%

Physical Properties

Density	7.75	g/cm ³
Melting Point	1425 - 1510	°C
Modulus of Elasticity	200	GPa
Electrical Resistivity	0.060	x10 ⁻⁶ Ω.m
Thermal Conductivity	23.9	W/m.K
Thermal Expansion	10.4	x10 ⁻⁶ /K

Technical Assistance

Our knowledgeable staff backed up by our resident team of qualified metallurgists and engineers, will be pleased to assist further on any technical topic.

UK Service Centres:

Smiths Belfast 02895 908 897
Smiths Biggleswade 01767 604 704
Smiths Birmingham 0121 728 4940
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Quality & Testing:



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