

STAINLESS STEEL

430 - UNS S43000



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430 stainless steel is a versatile and cost-effective stainless steel grade suitable for applications where moderate corrosion resistance and good formability are required. 430 offers good corrosion resistance in mild environments. It is resistant to atmospheric corrosion, fresh water, alkalis, and organic acids at moderate temperatures. However, it is less resistant to chloride ion stress corrosion cracking compared to austenitic stainless steels.

KEY FEATURES

- Good corrosion resistance
- Good heat resistance
- Exhibits ferromagnetic properties
- Can be welded using standard techniques
- Easily formed using conventional methods

CHEMICAL PROPERTIES

Chromium (Cr)	Manganese (Mn)	Silicone (Si)	Carbon (C)	Phosphorus (P)	Sulphur (S)	Iron (Fe)
16-18%	1%	1%	0.12%	0.04%	0.03%	rest

MECHANICAL PROPERTIES

Tensile strength (N/mm ²)	450-600
Yield strength (N/mm ²)	205-275
Elongation (% in 4D)	22-36
Hardness - Rockwell (HRB) max	85
Hardness - Brinell (HB) max	160-275

PHYSICAL PROPERTIES

Density (kg/m ³)	7700-7790	
Modulus of elasticity (Gpa)	200	
Mean coefficient of thermal expansion	0-100°C (µm/m/°C)	10.4
	0-350°C (µm/m/°C)	10.6
	0-538°C (µm/m/°C)	10.8
Thermal conductivity	at 100°C (W/m.K)	25.6
	at 500°C (W/m.K)	31.0
Specific Heat 0-100°C (J/kg.K)	460	
Electrical resistivity (nΩ.m)	600	
Melting point (°C)	1480	

MARKET SECTORS



Automotive Industry

Trim pieces, grills, exhaust components



Chemical Processing

Containers, tanks, equipment for applications



Food & Beverage Industry

Food processing equipment, knives, forks, utensils



Architectural Applications

Panels, cladding, decorative trim, interior design



Kitchen Appliances

Sinks, dishwashers, range hoods, microwave oven liners



Consumer Goods

Refrigerator panels and handles, washing machine drums



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