Technical Datasheet AWS 131 Rev.2





STAINLESS STEEL 1.4310

Key Features

Good mechanical properties and corrosion resistance Capable of high tensile strength following cold work

IMPORTANT We will manufacture to your required mechanical properties.

key advantages to you, our customer



0.025mm to 21mm (.001" to .827")





E.M.S available

(10 ft to 6000 Lbs)





Technical support

STAINLESS STEEL 1.4310 available in:-

- Round wire
- Bars or lengths
- Flat wire
- Shaped wire
- Rope/Strand

Packaging Coils Spools Bars or lengths

Manufacturing quality, delivering reliability | alloywire.com

STAINLESS STEEL 1.4310



Chemical Composition			Specifications	Key Features	Typical Applications
Element	Min %	Max %	BS EN 10088-3	Good mechanical properties and corrosion	Springs and high strength
С	0.05	0.12	DIN EN 10270-3	resistance	components
Mn	-	2.00		Capable of high tensile strength following	Engineered components
				cold work	Chemical processing
Р	-	0.045		Magnetic following cold work	Electronic equipment
S	-	0.015	Designations	·····g·······g·····	
Si	-	2.00	W.Nr. 1.4310		
Cr	16.00	19.00	UNS S30100 AWS 131		
Ni	6.00	9.50			
N	-	0.11			
Мо	-	0.80			
Fe	Fe BAL				

Density	7.90 g/cm ³	0.285 lb/in ³	
Melting Point	1420 °C	2590 °F	
Coefficient of Expansion	17.6 μm/m °C (20 – 100°C)	9.8 x 10 ⁻⁶ in/in °F (70 – 212 °F)	
Modulus of Rigidity	76 kN/mm ²	11000 ksi	
Modulus of Elasticity	190 kN/mm²	28000 ksi	

Heat Treatment of Finished Parts							
Condition of sumplied by Alloy Wire	Туре	Temperature			Cooling		
Condition as supplied by Alloy Wire		°C	°F	Time (Hr)	Cooling		
Annealed or Spring Temper	Stress Relieve	250 - 400	480 - 750	1	Air		

Properties							
Condition	Approx. tensile stren	gth	Approx. operating temperature				
Condition	N/mm²	ksi	°C	°F			
Annealed	<800	<116	-200 to +300	-330 to +570			
Spring Temper	1600 – 2200	232-319	-200 to +300	-330 to +570			

The above tensile strength ranges are typical. If you require different please ask.

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AS 9100 Aerospace & Defence ISO 9001 Quality Management ISO 45001 Health & Safety