

STAINLESS STEEL 304

Chemical Composition			Specifications	Key Features	Typical Applications
Element	Min %	Max %	ASTM A313 ASTM A580 BS 970 BS 2056	Good mechanical properties and corrosion resistance	Springs Engineered components Wire mesh Wire cloth Hose braiding
C	-	0.07			
Mn	-	2.00			
P	-	0.045			
S	-	0.030	Designations W.Nr. 1.4301 W.Nr. 1.4307 UNS S30400 AWS 161		
Si	-	1.00			
Cr	17.50	19.50			
Ni	8.00	10.50			

Density	8.0 g/cm ³	0.289 lb/in ³
Melting Point	1454 °C	2650 °F
Coefficient of Expansion	18.2 µm/m °C (20 – 100 °C)	10.1 x 10 ⁻⁶ in/in °F (70 – 212 °F)
Modulus of Rigidity	70.3 kN/mm ²	10196 ksi
Modulus of Elasticity	187.5 kN/mm ²	27195 ksi

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

Properties				
Condition	Approx. tensile strength		Approx. operating temperature	
	N/mm ²	ksi	°C	°F
Solution Annealed	600 – 800	87 – 116	-200 to +300	-330 to +570
Spring Temper	1300 – 2200	189 – 319	-200 to +300	-330 to +570

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