



## HASTELLOY<sup>™</sup> C-4

### Key Features

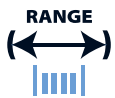
Excellent resistance to stress-corrosion cracking and to oxidizing atmospheres at high temperature

Exceptional resistance to a wide variety of chemical process environments including, hot contaminated mineral acids, solvents, chlorine, formic and acetic acids, and salt waters

### IMPORTANT

We will manufacture to your required mechanical properties.

## key advantages to you, *our customer*



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



Order 3m to 3t  
(10 ft to 6000 Lbs)



Delivery:  
within 3 weeks



Wire to your spec



E.M.S available



Technical support

### HASTELLOY<sup>™</sup> C-4 available in:-

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

### Packaging

- Coils
- Spools
- Bars or lengths



Trade name of Haynes International.

Chemical Composition			Specifications	Key Features	Typical Applications
Element	Min %	Max %	ASTM B574 ASTM B575 ASTM B619	Excellent resistance to stress-corrosion cracking and to oxidizing atmospheres at high temperature  Exceptional resistance to a wide variety of chemical process environments including, hot contaminated mineral acids, solvents, chlorine, formic and acetic acids, and salt waters	Chemical processing
Cr	14.00	18.00			
Mo	14.00	17.00	<b>Designations</b>  W.Nr. 2.4610 UNS N06455 AWS 052		
Fe	-	3.00			
C	-	0.015			
Si	-	0.08			
Co	-	2.00			
Mn	-	1.00			
P	-	0.04			
S	-	0.03			
Ti	-	0.70			
Ni	BAL				

<b>Density</b>	8.64 g/cm <sup>3</sup>	0.312 lb/in <sup>3</sup>
<b>Melting Point</b>	1399 °C	2550 °F
<b>Coefficient of Expansion</b>	10.8 µm/m °C (20 – 100 °C)	6.0 x 10 <sup>-6</sup> in/in °F (70 – 212 °F)
<b>Modulus of Rigidity</b>	81.2 kN/mm <sup>2</sup>	11777 ksi
<b>Modulus of Elasticity</b>	212.4 kN/mm <sup>2</sup>	30807 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	400 – 450	750 – 840	2	Air

Properties				
Condition	Approx. tensile strength		Approx. operating temperature	
	N/mm <sup>2</sup>	ksi	°C	°F
Annealed	800 – 1100	116 – 159	-200 to +400	-330 to +750
Spring Temper	1300 – 1500	189 – 218	-200 to +400	-330 to +750

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