



## HASTELLOY™ B-3

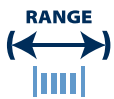
### Key Features

- Excellent corrosion resistance to hydrochloric acid at all concentrations and temperatures
- Withstands sulphuric, acetic, formic & phosphoric acids & other non-oxidising media
- Excellent resistance to pitting corrosion & stress corrosion cracking

### 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™ B-3 available in:-

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

### Packaging

- Coils
- Spools
- Bars or lengths



\*Trade name of Haynes International.

# HASTELLOY<sup>™</sup> B-3

Chemical Composition			Specifications	Key Features	Typical Applications
Element	Min %	Max %	ASTM B335 ASTM B619	Excellent corrosion resistance to hydrochloric acid at all concentrations and temperatures  Withstands sulphuric, acetic, formic and phosphoric acids and other non-oxidising media	Chemical processing
Ni	65.00	-			
Cr	1.00	3.00	<b>Designations</b>  W.Nr. 2.4600 UNS N10675 AWS 051	Excellent resistance to pitting corrosion and stress corrosion cracking	
Mo	27.00	32.00			
Fe	1.00	3.00			
W	-	3.00			
C	-	0.01			
Si	-	0.10			
Co	-	3.00			
Mn	-	3.00			
V	-	0.20			
P	-	0.030			
S	-	0.010			
Ti	-	0.20			
Cu	-	0.20			
Al	-	0.50			
Zr	-	0.10			
Nb/Cb	-	0.20			
Ta	-	0.20			
Ni+Mo	94.00	98.00			

<b>Density</b>	9.22 g/cm <sup>3</sup>	0.333 lb/in <sup>3</sup>
<b>Melting Point</b>	1418 °C	2585 °F
<b>Coefficient of Expansion</b>	10.6 µm/m °C (20 – 100 °C)	5.7 x 10 <sup>-6</sup> in/in °F (70 – 212 °F)
<b>Modulus of Rigidity</b>	83 kN/mm <sup>2</sup>	12038 ksi
<b>Modulus of Elasticity</b>	216 kN/mm <sup>2</sup>	31329 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	1000 – 1200	145 – 174	-200 to +400	-330 to +750
Spring Temper	1600 – 2000	232 – 290	-200 to +400	-330 to +750

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