



## INCOLOY<sup>®</sup> 800

### Key Features

Excellent resistance to oxidation and carburisation at high temperatures

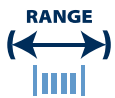
Corrosion resistant in many aqueous environments

\*\*High temperature static applications

### 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

### INCOLOY<sup>®</sup> 800 available in:-

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

### Packaging

- Coils
- Spools
- Bars or lengths



\*Trade name of Special Metals Group of Companies.

# INCOLOY® 800



alloy wire®  
international

Chemical Composition			Specifications	Key Features	Typical Applications
Element	Min %	Max %	BS 3075 NA15 BS 3076 NA15	Excellent resistance to oxidation and carburisation at high temperatures Corrosion resistant in many aqueous environments **High temperature static applications	Process Piping Heat Exchangers Carburising Equipment Heating Element Sheathing
Ni	30.00	35.00			
Co	-	2.00	<b>Designations</b>		
Cu	-	0.75	W.Nr. 1.4876 UNS N08800 AWS 020		
Cr	19.00	23.00			
Al	0.15	0.60			
C	-	0.10			
Si	-	1.00			
Mn	-	1.50			
Ti	0.15	0.60			
Fe	BAL				
S	-	0.015			

<b>Density</b>	7.94 g/cm <sup>3</sup>	0.287 lb/in <sup>3</sup>
<b>Melting Point</b>	1385 °C	2525 °F
<b>Coefficient of Expansion</b>	14.4 µm/m °C (20 – 100 °C)	7.9 x 10 <sup>-6</sup> in/in °F (70 – 212 °F)
<b>Modulus of Rigidity</b>	78.9 kN/mm <sup>2</sup>	11444 ksi
<b>Modulus of Elasticity</b>	196.5 kN/mm <sup>2</sup>	28500 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	450 – 470	840 – 880	0.5 - 1	Air

Properties				
Condition	Approx. tensile strength		Approx. operating temperature depending on load** and environment	
	N/mm <sup>2</sup>	ksi	°C	°F
Annealed	<800	<116	-200 to +815	-330 to +1500
Spring Temper	800 – 1100	116 – 159	-200 to +815	-330 to +1500

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

\*\*Static applications = still/fixed/motionless/rigid