



## INCOLOY<sup>®</sup> 825

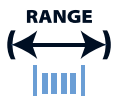
### Key Features

- Resistant to reducing environments such as those containing sulphuric and phosphoric acids
- Resistant to a variety of oxidising substances such as nitric acid and nitrates
- Resistant to chloride-ion stress corrosion cracking and, pitting & crevice corrosion
- Good for chemical processing

### 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> 825 available in:-

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

### Packaging

- Coils
- Spools
- Bars or lengths



Chemical Composition			Specifications	Key Features	Typical Applications
Element	Min %	Max %	ASTM B425 BS 3075 NA 16 BS 3076 NA 16 ISO 15156-3 (NACE MR 0175)  <b>Designations</b>  W.Nr. 2.4858 UNS N08825 AWS 022	Resistant to reducing environments such as those containing sulphuric and phosphoric acids  Resistant to a variety of oxidising substances such as nitric acid and nitrates  Resistant to chloride-ion stress corrosion cracking and, pitting & crevice corrosion  Good for chemical processing	Chemical Processing Nuclear Fuel Reprocessing Acid Production Pickling Equipment
Ni	38.00	46.00			
Co	-	2.00			
Cu	1.50	3.00			
Cr	19.50	23.50			
Mo	2.50	3.50			
Al	-	0.20			
C	-	0.05			
Si	-	0.50			
Mn	-	1.00			
S	-	0.03			
Ti	0.60	1.20			
Fe	BAL				

<b>Density</b>	8.14 g/cm <sup>3</sup>	0.294 lb/in <sup>3</sup>
<b>Melting Point</b>	1400 °C	2550 °F
<b>Coefficient of Expansion</b>	14.0 µm/m °C (20 – 100 °C)	7.8 x 10 <sup>-6</sup> in/in °F (70 – 212 °F)
<b>Modulus of Rigidity</b>	75.9 kN/mm <sup>2</sup>	11009 ksi
<b>Modulus of Elasticity</b>	196 kN/mm <sup>2</sup>	28428 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	
	N/mm <sup>2</sup>	ksi	°C	°F
Annealed	600 – 800	87 – 116	-100 to +250	-145 to +480
Spring Temper	800 – 1100	116 – 159	-100 to +250	-145 to +480

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