



INCOLOY® 825

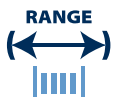
Key Features

- 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® 825 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.

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) Designations 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, pitting and 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				

Density	8.14 g/cm ³	0.294 lb/in ³
Melting Point	1400 °C	2550 °F
Coefficient of Expansion	14.0 µm/m °C (20 – 100 °C)	7.8 x 10 ⁻⁶ in/in °F (70 – 212 °F)
Modulus of Rigidity	75.9 kN/mm ²	11009 ksi
Modulus of Elasticity	196 kN/mm ²	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 ²	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.