#### Technical Datasheet AWS 040 Rev.1



## MONEL<sup>®</sup> 400

#### **Key Features**

Excellent corrosion resistance in a wide range of acidic & alkaline environments Especially suitable for reducing conditions Good ductility & thermal conductivity

Good for sea water applications

IMPORTANT We will manufacture to your required mechanical properties.

### key advantages to you, our customer



(.001" to .827")





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



A.



Delivery:

within 3 weeks

Technical support

#### MONEL® 400 available in:-

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

#### Packaging

- CoilsSpools
- Bars or lengths

\*Trade name of Special Metals Group of Companies.

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Chemical Composition			Specifications	Key Features	Typical Applications
Element	Min %	Max %	AMS 4730	Excellent corrosion resistance in a wide range	Marine Engineering
С	-	0.30	ASTM B164 BS 3075 NA 13	of acidic & alkaline environments	Chemical Processing
Si	-	0.50	BS 3076 NA 13 DTD 204B ISO 15156-3 (NACE MR 0175) QQ-N-281	Especially suitable for reducing conditions Good ductility and thermal conductivity Good for sea water applications	Hydro-carbon Processing Heat Exchangers Valves
Mn	-	2.00			
S	-	0.024			Pumps
Cu	28.00	34.00	Designations		
Fe	-	2.50	W.Nr. 2.4361		
Ni+Co	63.00	70.00	W.Nr. 2.4360 UNS N04400		
Co	-	2.0	AWS 040		

Density	8.8 g/cm <sup>3</sup>	0.318 lb/in <sup>3</sup>	
Melting Point	1350 °C	2460 °F	
Coefficient of Expansion	13.9 μm/m °C (20 – 100 °C)	7.7 x 10 <sup>-6</sup> in/in °F (70 – 212 °F)	
Modulus of Rigidity	65.3 kN/mm²	9471 ksi	
Modulus of Elasticity	173 kN/mm²	25092 ksi	

Heat Treatment of Finished Parts							
Condition of supplied by Alley Wire	Turne	Temperature		Time (Ur)	Cooling		
Condition as supplied by Alloy Wire	Туре	°C	°F	Time (Hr)	Cooling		
Annealed or Spring Temper	Stress Relieve	300 – 320	570 – 610	0.5 – 1	Air		

Properties							
Condition	Approx. tensile stren	gth	Approx. operating temperature				
Condition	N/mm²	ksi	°C	°F			
Annealed	400 – 600	58 – 87	-200 to +230	-330 to +445			
Spring Temper	850 – 1050	123 – 152	-200 to +230	-330 to +445			

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

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