Technical Datasheet AWS 040 Rev.1



MONEL[®] 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 ³	0.318 lb/in ³	
Melting Point	1350 °C	2460 °F	
Coefficient of Expansion	13.9 μm/m °C (20 – 100 °C)	7.7 x 10 ⁻⁶ 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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