

NICKEL[®] 270

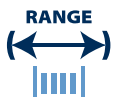
Key Features

High purity grade of nickel that is made by powder metallurgy

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

NICKEL[®] 270 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 %	-	High purity grade of nickel that is made by powder metallurgy	Electrical Resistance Thermometers Components for hydrogen thyratrons Electrical and electronic components
Ni + Co	99.9	-	Designations W.Nr. 2.4050 UNS N02270 AWS 074		
Cu	-	0.01			
Fe	-	0.05			
Mn	-	0.003			
C	-	0.05			
S	-	0.003			
Mg	-	0.005			
Si	-	0.005			
Ti	-	0.005			

Density	8.89 g/cm ³	0.321 lb/in ³
Melting Point	1454 °C	2650 °F
Coefficient of Expansion	13.3 μm/m °C (20 – 100 °C)	7.4 x 10 ⁻⁶ in/in °F (70 – 212 °F)
Modulus of Rigidity	82 kN/mm ²	11893 ksi
Modulus of Elasticity	207 kN/mm ²	30000 ksi

Electrical Resistivity	
7.5 μΩ · cm	45 ohm · circ mil/ft

Thermal Conductivity	
86 W/m · °C	595 btu · in/ft ² · h · °F

Properties			
Condition	Approx. tensile strength		Approx. operating temperature
	N/mm ²	ksi	
Annealed	300 – 450	44 – 65	Tensile strength and elongation drop significantly at temperatures above 315 °C (600 °F). Service temperature is dependent on environment, load and size range.
Hard Drawn	600 – 800	87 – 116	

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