

## NICKEL<sup>®</sup> 205

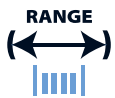
### Key Features

Similar to Nickel 200 but has compositional adjustments to enhance its performance in electrical and electronic applications

### 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<sup>®</sup> 205 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 %	-  <b>Designations</b> W.Nr. 2.4061 UNS N02205 AWS 072	Similar to Nickel 200 but has compositional adjustments to enhance its performance in electrical and electronic applications	Anodes and grids of electronic valves Lead wires Transistor Housings Magneto-strictive Transducers
Ni	99.0	-			
Mg	0.01	0.08			
Ti	0.01	0.05			
Cu	-	0.15			
Fe	-	0.20			
C	-	0.15			
Si	-	0.15			
S	-	0.008			
Mn	-	0.35			

<b>Density</b>	8.89 g/cm <sup>3</sup>	0.321 lb/in <sup>3</sup>
<b>Melting Point</b>	1446 °C	2635 °F
<b>Coefficient of Expansion</b>	13.3 µm/m °C (20 – 100 °C)	7.4 x 10 <sup>-6</sup> in/in °F (70 – 212 °F)
<b>Modulus of Rigidity</b>	82 kN/mm <sup>2</sup>	11893 ksi
<b>Modulus of Elasticity</b>	207 kN/mm <sup>2</sup>	30000 ksi

Electrical Resistivity	
9.5 µΩ · cm	57 ohm · circ mil/ft

Thermal Conductivity	
75 W/m · °C	520 btu · in/ft <sup>2</sup> · h · °F

Properties			
Condition	Approx. tensile strength		Approx. operating temperature
	N/mm <sup>2</sup>	ksi	
Annealed	400 – 500	58 – 73	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	700 – 900	102 – 131	

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