

### Inco Type 210H

*Inco Type 210H nickel powder is an ultra fine filamentary, high purity, particle developed and produced by Vale Inco carbonyl technology.*

*The powder consists of a chain-like network of fine sub-particles of 0.25 -0.5 microns in diameter. The highly branched, three-dimensional particles are very long.*

*The unique morphology and high surface area makes the powder ideally suited for catalytic applications.*

### Applications

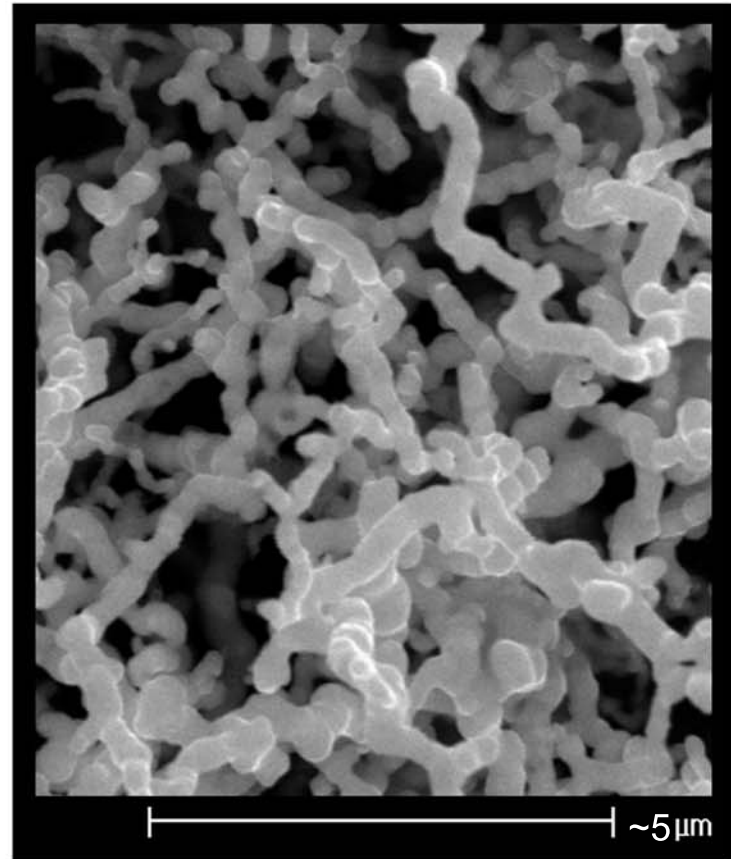
*Inco Type 210H offers enhanced catalytic activity relative to other nickel powders due to its relatively high specific surface area*

*Inco Type210H can be used as an effective binder metal in diamond tools and hard metals*

### Advantages

*· Tight control of the particle size and specific surface area of Inco Type 210H provides well defined surface area in battery and fuel cell applications.*

*· Enhances the toughness and corrosion resistance in diamond and hard metal binder applications.*



### Features

### Benefits

#### Shape

*Ultra-fine three-dimensional filamentary structure with high surface area*

**Creation of 3-D Structure:**  
*Allows production of catalytically active structures*

#### Size Uniformity

*Reproducible distribution of ultra-fine filamentary particles*

**Consistent Performance:**  
*With uniform, repeatable stability and performance*

#### Experience

*Decades as a reliable supplier to the nickel battery and PM industry worldwide*

**Continued Commitment:**  
*To meeting exacting customer specifications*

#### Traceability

*Each batch is tested and recorded from refinery to customer delivery*

**Confidence in Sourcing:**  
*Complete tracking 'paper trail', from refinery to finished product*

#### ISO-9001

*All powders are produced in ISO 9001 qualified refineries*

**Conformance:** *To stringent requirements that demand ISO 9001 standards*

**Steel drum internally coated with protective, inert resin**

**Approximate Dimensions**

Diameter: 410 mm  
 Height: 640 mm  
 Net Weight: 25 kg  
 Gross Weight: 34 kg

**Multiples can be palletised and shrink-wrapped**



**UN Approved Packaging**

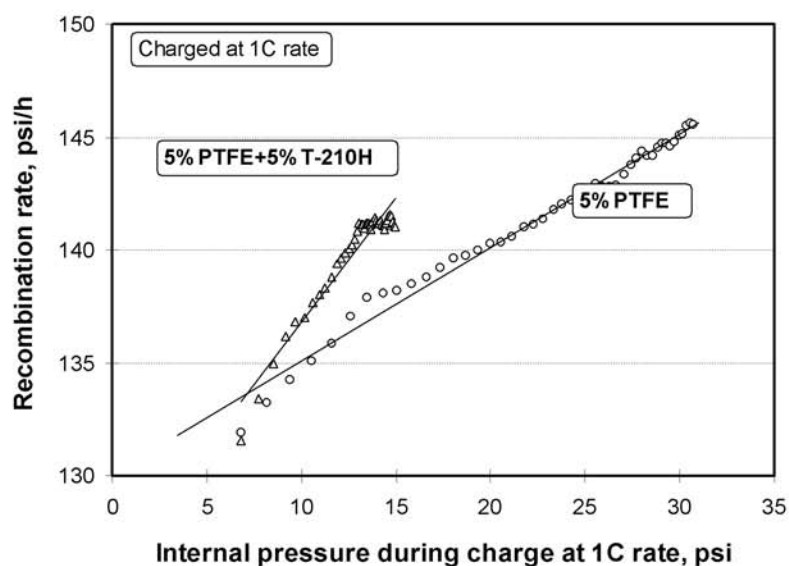
### Typical Chemical Composition

	Typical Wt %	Maximum Wt %
Carbon	0.9	2
Sulphur	0.0003	0.001
Oxygen	0.2	2
Nitrogen	n.a.	n.d.
Iron	0.007	0.01
Cobalt	0.0001	n.d.
Nickel	balance	--
Total Other Elements	<0.001	--

### Typical Physical Characteristics

Fisher Sub-Sieve Size: (Air Permeability Method)	0.25 - 0.50 microns
Bulk Density: (Scott Volumeter Method)	<0.50 g/cm <sup>3</sup>
Typical Specific Surface Area:	2.5 - 5.0 m <sup>2</sup> /g (BET)

### Typical Catalytic Properties



This product is part of a complete range of Inco Special Nickel Products. The range includes: fine and extra fine nickel powders of many different morphologies, nickel coated graphite particles, INCOFOAM™ high porosity nickel foam, nickel oxides and nickel flakes.