

Inco Type 110

Type 110 nickel powder is an extra fine, high purity, discrete particle developed and produced by Inco carbonyl technology.

The powder is tightly sized in the 1 - 2 micron diameter size range and is the finest commercially available nickel powder for various PM applications.

Applications

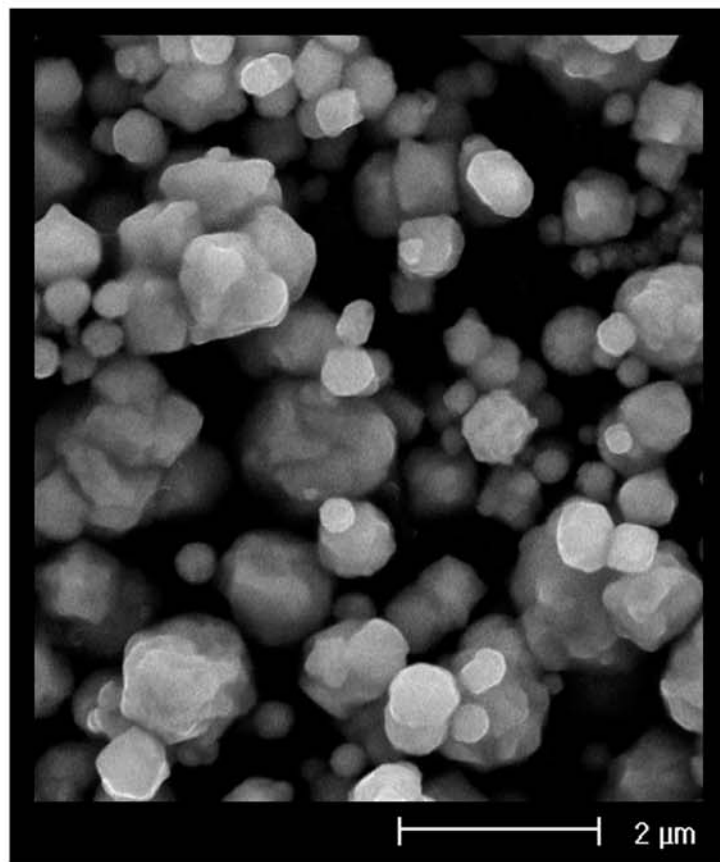
Inco Type 110 PM is used as a binder in fine grain tungsten carbide parts primarily for improved corrosion resistance. The finer particle size of Type 110 increases hardness and toughness. Inco Type 110 is an excellent alternative to extra fine cobalt powders.

Inco Type 110 is used as an alloying additive to improve toughness and strength in Co, bronze or copper-iron based diamond tool binders. Bend strength and hardness increase compared to coarser Ni powders.

Advantages

- Improved dispersion in hard metals reduces the formation of binder lakes.

- Finer particle size allows lower sintering temperatures and faster sintering times than standard Ni powders, reducing degradation of diamonds during sintering.



Features

Benefits

Shape

Extra fine smooth particles

Optimum Mixing and Sintering:

Allows very uniform dispersion of nickel in fine grained abrasive mixtures

Size Uniformity

Very fine particle size, particles typically 1-2 microns in diameter

Consistent Performance:

Closely matches particle size of fine metal and abrasive particles

Experience

Decades as a reliable supplier to the hard metal and diamond tool industries

Continued Commitment:

To meeting the specifications of hard metal and diamond tool customers

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: 50 kg
 Gross Weight: 59 kg

Multiples can be palletised and shrink-wrapped



UN Approved Packaging

Typical Chemical Composition

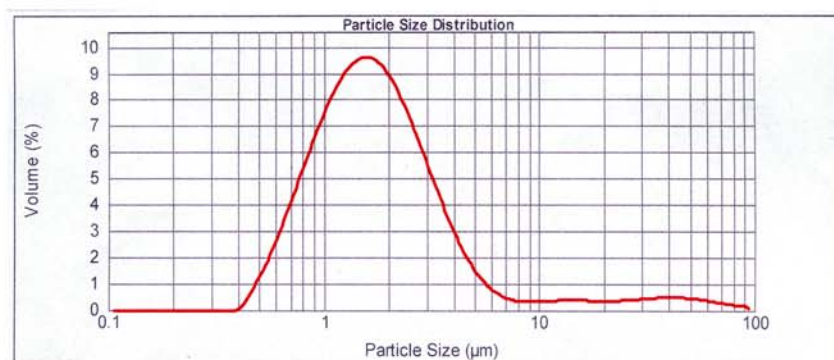
	Typical Wt %	Maximum Wt %
Carbon	0.6	1
Sulphur	0.0003	0.001
Oxygen	0.11	1
Nitrogen	0.001	n.d.
Iron	0.006	0.03
Cobalt	0.0001	n.d.
Nickel	balance	--
Total Other Elements	<0.001	

Scott Volumeter Method

Typical Physical Characteristics

Fisher Sub-Sieve Size: (Air Permeability Method)	0.8 - 1.5 microns
Bulk Density:	0.6 - 2.3 g/cm ³
Typical Specific Surface Area:	0.9 - 2 m ² /g (BET)

Typical Particle Size Distribution



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.