

Inco Type 287

Inco Type 287 nickel powder is a fine filamentary, high purity particle developed and produced by Vale Inco carbonyl technology.

The unique morphology makes the powder ideally suited to the production of porous structures by loose sintering or for the formation of conductive networks in a variety of media.

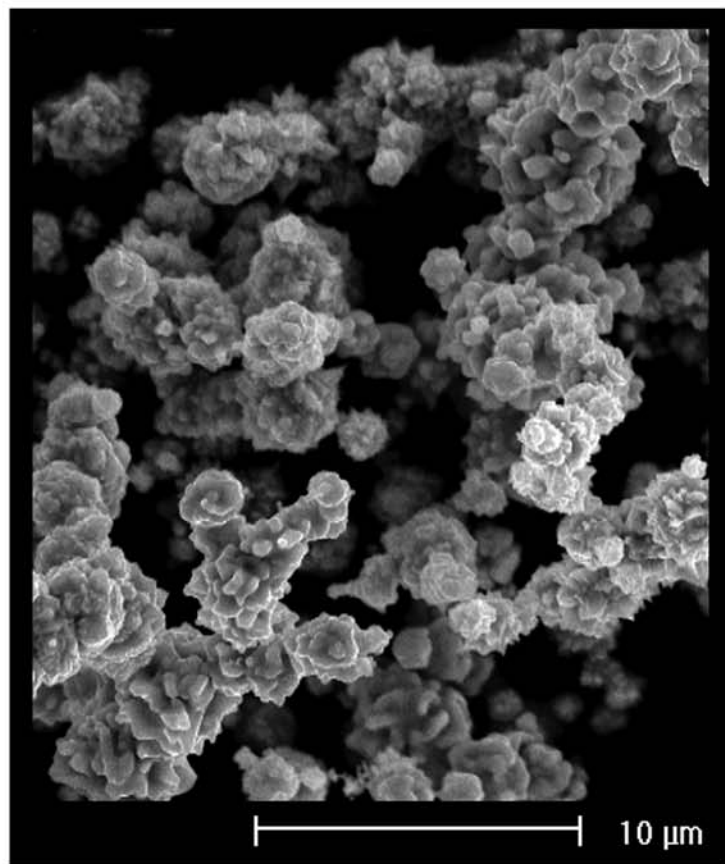
Applications

Inco 287 can be used for the production of porous electrodes, especially by so-called loose or dry sintering.

Inco Type 287 is used as a conductive additive in a variety of media including battery and fuel cell active materials, and as a conductive pigment in coatings, especially for EMI shielding applications.

Advantages

- Tight control of the particle size and bulk density of Type 287 provides well controlled porosity in battery electrodes and other porous structures.
- The relationship between Type 287 properties and the porosity and strength of sintered structures is well understood, enabling appropriate tailoring of porous structure properties.
- Provides a ferromagnetic component to shield-paints.
- Provides enhanced corrosion resistance in conductive coatings.
- Shorter filament length is less prone to agglomeration in dry mixing.
- Fine primary particle size can be advantageous in PM processing utilising aggressive mixing to break down the chainlike structure.
- High green strength due to the irregular powder shape.
- Enhances toughness and corrosion resistance in heavy metal, diamond and hard metal binder applications.



Features

Benefits

Shape

Three-dimensional filamentary structure

Creation of 3-D Structure:
Allows production of uniformly porous sintered structures and conductive networks

Size Uniformity

Reproducible distribution of filamentary particles

Consistent Performance:
With uniform, repeatable performance

Experience

Decades as a reliable supplier to the nickel battery 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: 100 kg
 Gross Weight: 109 kg

Multiples can be palletised and shrink-wrapped



UN Approved Packaging

Typical Chemical Composition

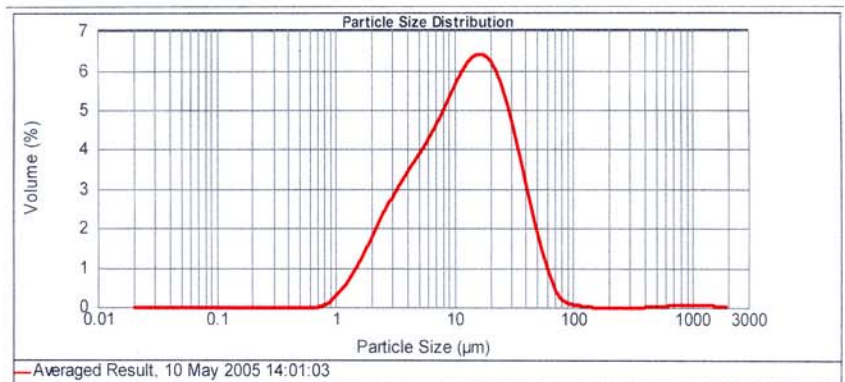
	Typical Wt %	Maximum Wt %
Carbon	0.015	0.3
Sulphur	0.0001	0.001
Oxygen	0.04	0.15
Nitrogen	0.003	n.d.
Iron	0.004	0.01
Cobalt	<0.0002	n.d.
Nickel	balance	--
Total Other Elements	<0.001	--

Scott Volumeter Method

Typical Physical Characteristics

Fisher Sub-Sieve Size: (Air Permeability Method)	2.6 - 3.3 microns
Bulk Density:	0.75 - 0.95 g/cm ³
Typical Specific Surface Area:	0.6 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.