

Vale Inco Nickel Plating Chips

Ni



Vale Inco Nickel Plating Chips are a newly developed nickel anode material for multi purpose nickel plating applications. They are produced in the United Kingdom from our high purity gas refining process.

Chips are a non-activated, high purity form of nickel anode material made from Vale Inco's unique carbonyl refining process. The dissolution characteristics of this product are similar to other nonactivated nickel anodes and they will dissolve at 100% anode efficiency in common nickel electroplating solutions that contain chlorides. Dissolution produces a small amount of metallic residues.

Chips are "disc-like" in shape, with a typical thickness of 4-8mm and diameter that is > 15mm, with 90% > 17 mm, making this anode material suitable for plating from titanium baskets with standard mesh sizes.



The unique shape allows the material to pack tightly in the baskets, thus preventing the formation of "bridges" that can create voids in the basket load. This results in more uniform current distribution and deposit thickness, as well as preventing electrochemical attack of the titanium basket in the area of the voids, which form when square shaped anodes are used.

Chips are free of sharp edges, which make for easy handling and basket loading and enables the basket load to settle without the aid of any ramming action that can result in basket damage.

Vale Inco Nickel Plating Chips are made by a process that is registered to ISO 9001-2000.

Vale Inco Limited
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Typical Specifications

Form

- Disc- shaped pieces of pure nickel, 4-8mm thick and diameter that is > 15mm with 90% > 17mm

Packing Density

- Approximately 4.4 to 6.0 g/cm³ of basket capacity.

Packaging

- 10kg(22lb) plastic bags; Nickel* >99.98
5 bags per carton;
- 20 cartons per pallet.
Net Weight 1000kg (2204lbs)

Typical Chemical Analysis (percent)

Nickel* >99.98	Sulphur 0.0001
Cobalt <0.00002	Copper 0.0002
Iron 0.006	Zinc <0.00002
Carbon 0.007	Lead <0.00002

Nickel determined by difference; Exceeds the chemical requirement of ASTM B 39, ISO 6283, NR 9995 and BS 375.