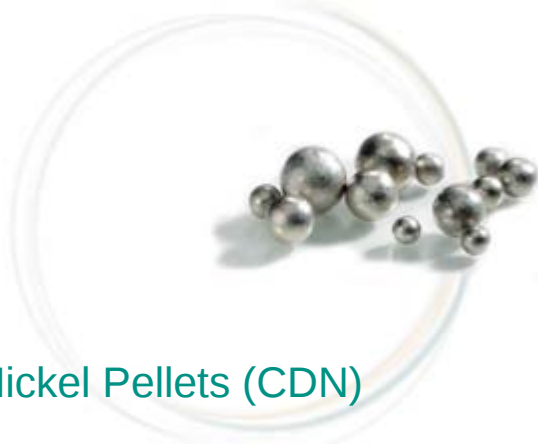




Nickel Pellets (CDN)

Nickel Pellets are a high purity form of nickel widely used in melting applications. Nickel Pellets are produced by a unique carbonyl gas refining process at the Copper Cliff Nickel Refinery in Sudbury, Canada.

The controlled and consistent purity of Nickel Pellets and the advantages associated with its distinctive shape make this product an industry standard for the production of high-nickel alloys and iron-base alloys:

- Carbonyl refining produces the purest form of nickel available, allowing for its use in high-end applications in the aerospace, electronic and nuclear industries
- 100% density prevents breakage or dusting losses during handling
- High nickel content and low impurity levels allow for its addition at any stage of the alloy-making process
- Unique shape and high nickel content allows for precise control of nickel additions to satisfy the most stringent quality requirements and to minimize the risk of overcharging excess nickel
- Spherical shape and compact size ensures high packing density that reduces furnace back charging
- Ideal for use with automated loading and handling systems

Nickel Pellets are produced in compliance with the following ISO standards: ISO 9001:2008.

For further information about our products, please visit our website (www.vale.com) or contact a regional sales representative.

Typical Specifications

Form

- Spherical pieces of nickel
- Diameter: <20 mm
- Bulk density: approximately 5.2 - 5.6 g/cm³

Packaging

- 10 kg bags, 5 bags per box, 20 boxes per pallet (1,000 kg net weight)
- 250 kg drums, 4 drums per pallet
- 1 tonne bulk bags
- 2 tonne bulk bags
- Bulk shipments (inquire for availability)

Chemical Analysis (wt %)

Ni*	≥99.98
C	≤0.007
O	≤0.007
Fe	≤0.001
Ca, Cu, N, Na, S, Si	≤0.0005**
Al, As, Bi, Cd, Co, Mn,	≤0.00005**
Mg, P, Pb, Sn, Sb, Zn	

*Nickel determined by difference.

** For each element listed.



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250 kg drums,
4 drums per pallet



1 or 2 tonne bag