



# Nickel Discs™ (Canada)

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

The controlled and consistent purity of Nickel Discs™ and the advantages associated with its distinctive shape make this product an industry standard for a wide range of demanding melting applications:

- Carbonyl refining produces one of the purest forms of nickel available, allowing for its use in a variety of applications including austenitic stainless steels, low alloy steels, nickel and copper base alloys and cast irons, such as Ni-Hard and Ni-Resist.
- High nickel content and low impurity levels allow for its addition as a primary feed material in BOF, EAF, AOD and induction furnaces or for fine tuning additions in ladle metallurgy stations.
- Solid metallic nature of product ensures no breakage, dusting and resultant losses during handling.
- Distinctive shape results in high packing density, easy flow and permits semi- and fully-automated handling operations.
- Assured to the Copper Mark Joint Due Diligence Standard, in accordance with OECD Due Diligence Guidance for Responsible Supply Chains.
- Carbon intensity is 7.1 t CO<sub>2</sub>e/t Ni, including scopes 1, 2, and 3 (upstream) emissions as of the most recent assessment year (2022)<sup>1</sup>. Carbon intensity is reassessed on a regular basis.

Nickel Discs™ are produced in compliance with the ISO 9001:2015 quality standard.

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



2 tonne bag

Disclaimer: The product descriptions and specifications contained in this document are made in accordance with our analyses and the methods used to produce Vale's nickel products. While these descriptions and specifications are reflective of normal production lots, rather than each individual piece, such descriptions and specifications shall in no event be deemed or interpreted as any representation, warranty or commitment by Vale in connection with Vale's nickel products quality. Vale's nickel products quality shall be determined only in accordance with the corresponding contract terms for each transaction agreed between Vale and Vale's customer and the quality related certificate issued under such contract.

<sup>1</sup>Independent third-party limited assurance to the general principles of ISO 14064-3 has been provided by Intertek Certification GmbH.

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## Product Description

### Form

- Disc shaped
- Diameter: approximately 14 – 18 mm
- Thickness: approximately 3.5 – 5.5 mm
- Bulk density: approximately 4.9 – 5.6 g/cm<sup>3</sup>

### Packaging

- 2 tonne bags
- Bulk shipments

### Typical 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, Mg, P, Pb, Sn, Sb, Zn	≤0.00005**

\* Nickel determined by difference.

\*\* For each element listed.