



Onça Puma Ferronickel

Onça Puma Ferronickel is an iron nickel metallic shot used as a feed material in stainless steel production. Vale's ferronickel is produced by a state of the art refining process at our operation in Brazil.

Low impurity levels and high nickel content make Onça Puma Ferronickel ideally suited for the production of high quality stainless steels:

- Ideal shape and size designed for easy handling with automatic conveyors and hopper loading systems
- Solid metallic nature of product ensures no breakage, dusting and resultant losses during handling
- Low impurity levels allow for its addition at multiple stages of the stainless steel production process
- High nickel content ensures precise control of nickel additions, allowing stainless steel producers to meet their specifications
- Carbon intensity is 28.0 t CO₂e/t Ni, including scopes 1, 2, and 3 (upstream) emissions as of the most recent assessment year (2023)¹. Carbon intensity is reassessed on a regular basis.

Vale produces a suite of products at our operations throughout the world that meet the diverse needs of stainless steel producers.

Onça Puma Ferronickel is produced in compliance with ISO 9001:2015 and ISO 14001:2015.

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

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.

¹Independent third-party limited assurance to the general principles of ISO 14064-3 has been provided by Intertek Health Sciences Inc. Emissions allocated by economic value.

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Product Description

Form

- Shot Size: 5–50 mm (>95%)

Packaging*

- 2 tonne bags
- Bulk shipments in containers

* Please inquire for availability in your area.

Typical analysis (wt %)

Ni	27.5 +/- 5%
Co	<0.5
Si	max 0.6%
Cr	~0.05
Cu	~0.03
C	max 0.06
P	max 0.03
S	max 0.06

Co/Ni : <1:40