



## Utility<sup>®</sup> Nickel

Utility<sup>®</sup> Nickel is a high nickel metallic shot designed to be the ideal nickel additive for stainless and alloy steel production. Utility<sup>®</sup> Nickel is produced by a proprietary refining process at three locations in Asia: Kaohsiung, Taiwan; Onsan, Korea; and Dalian, China.

The unique design features of Utility<sup>®</sup> Nickel and the advantages associated with its distinctive shape and size make it ideally suited for the production of the highest quality stainless and alloy steels at the lowest possible cost:

- Unique shape and size designed for easy handling with automatic conveyors and hopper loading systems without rolling or bridging
- Solid metallic nature of product ensures no breakage, dusting and resultant losses during handling
- High nickel content and low impurity levels allow for its additions at any stage of the steel-making process (i.e. arc furnace, convertor or ladle furnace)
- 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
- Optimal shot size ensures high packing density in charge bucket and EAF, easy melting in EAF and ideal cooling effect when added to AOD or ladle furnace

Our refineries are located close to nearby customers and markets to allow for the highest level of dependability and customer service.

Utility<sup>®</sup> Nickel is produced in compliance with the following ISO standards: ISO 9001:2008 and ISO 14001:2004.

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

## Typical Specifications

### Form

- Shot size  
Specification: 3 - 80 mm (>96%)  
Typical: 3 - 80 mm (>97%)

### Packaging\*

- 250 kg drums
- 2 tonne bags
- Bulk shipments

\*Please inquire for availability in your area.

### Typical Chemical Analysis (wt %)

Ni**	>97
Co	~1.4
Fe	~0.7
Cu	~0.4
C	~0.2
S	~0.1
Si	~0.1
P	~0.005

\*\*Nickel determined by difference.



250 kg drum



2 tonne bag