



## T255™ Nickel Powder (Premium Grade)

T255™ is a high purity nickel powder with a fine, three-dimensional filamentary (“chain-like”) structure. T255™ is produced by a unique carbonyl gas refining process at the Clydach Nickel Refinery in the UK.

T255™ is recognized as an industry standard feed for the production of sintered rechargeable battery electrodes:

- Sinters readily to form a conductive, open porosity network
- Uniform size distribution and density results in controlled porosity in sintered electrodes and other porous structures
- Porosity-strength relationship of sintered T255™ is well understood, enabling tailoring of porous structure

T255™ is widely used as a conductive additive in:

- Batteries and fuel cells
- Pigments in coatings, especially for electromagnetic interference (EMI) shielding applications
- Polymers for electronic applications to provide electrical conductivity

T255™ is also used in powder metallurgical applications, as the filamentary structure can be broken down into fine primary particles.

T255™ is produced in compliance with the following ISO standards: ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007.

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



75 kg drum

### Typical Specifications

#### Form

- Fisher sub-sieve size: 2.2 - 2.6  $\mu\text{m}$
- Bulk density: 0.50 - 0.58  $\text{g/cm}^3$
- Sieve test:  $\leq 0.8 \text{ wt\% } +100\#$

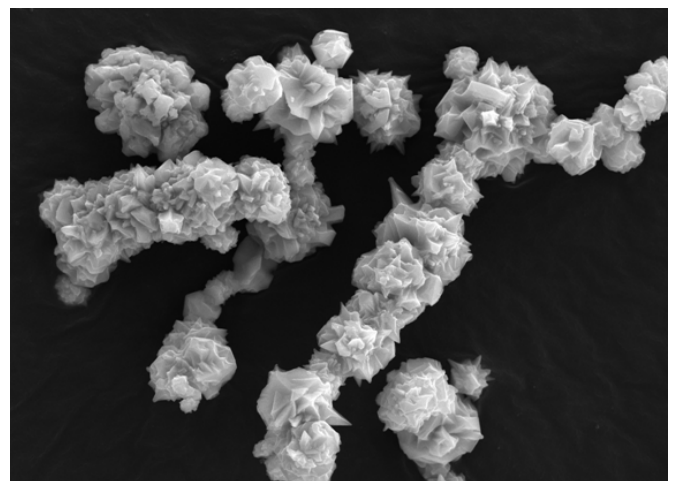
#### Packaging

- 75 kg steel drums, 6 or 12 drums per pallet

#### Chemical Analysis (wt %)

|     | Typical  | Max   |
|-----|----------|-------|
| Ni* | >99.7    | --    |
| Co  | <0.00005 | --    |
| C   | <0.2000  | 0.25  |
| Fe  | <0.0030  | 0.01  |
| S   | <0.0002  | 0.001 |
| O   | <0.0750  | 0.15  |
| N   | <0.0100  | --    |

\*Nickel determined by difference.



High resolution SEM image of T255™ nickel powder