Designation: A 636 – 08

Standard Specification for Nickel Oxide Sinter[1]

This standard is issued under the fixed designation A 636; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope*

1.1 This specification covers one grade of nickel oxide sinter, designated as 75 used for alloying in iron and steel melting.

2. Referenced Documents

2.1 *ASTM Standards:* [2]

A 1025 Specification for Ferroalloys and Other Alloying Materials, General Requirements

3. General Conditions for Delivery

3.1 Materials furnished to this specification shall conform to the requirements of Specification A 1025, including any supplementary requirements that are indicated in the purchase order. Failure to comply with the general requirements of Specification A 1025 constitutes nonconformance with this specification. In case of conflict between the requirements of this specification and Specification A 1025, this specification shall prevail.

4. Chemical Requirements

4.1 The chemical requirements are shown in Table 1.

TABLE 1 Chemical Requirements

Element	Composition, %
	Grade 75
Nickel, min	75.00
Cobalt, max	1.30
Copper, max	0.90
Iron, max	0.50
Sulfur, max	0.02

5. Sampling for Chemical Analysis

5.1 The material shall be sampled in accordance with procedures outlined below:

5.1.1 The sample shall be taken by cutting across the entire stream at regular intervals during the time of movement of the mass being sampled. The quantity to be taken at each interval and the number of such intervals shall be so proportioned that the total quantity taken shall amount to not less than 0.40 % of the total material being sampled.

5.2 *Treatment of Sample*:

5.2.1 In the case of nickel oxide sinter 75, the sample representing each shipment or lot shall be reduced in amount using a riffle splitter or other suitable mechanical splitter to 1000 g. This 1000-g sample shall be placed in an oven at 250°F (121°C) for ½ h to remove any traces of moisture, and then pulverized to pass an 80-mesh screen using appropriate equipment to avoid sample contamination. Approximately 250 g of this pulverized material shall be split out for copper and sulfur assays, using a riffle splitter or other suitable mechanical splitter. The unused portion of individual shipment (or lot) samples whose copper and sulphur assays are within specification shall be combined by weight into two, three, or four lot composites. Approximately 250 g of the composited material shall be split out, using a riffle splitter or other suitable mechanical splitter and analyzed for nickel. This nickel analysis shall apply to each shipment (or lot) comprising the composite.

6. Keywords

6.1 nickel; nickel oxide; sinter

[1] This specification is under the jurisdiction of ASTM Committee A01 on Steel, Stainless Steel and Related Alloys and is the direct responsibility of Subcommittee A01.18 on Castings.

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[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

***A Summary of Changes section appears at the end of this standard.**

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SUMMARY OF CHANGES

Committee A01 has identified the location of selected changes to this standard since the last issue (A 636-76 (2004)) that may impact the use of this standard. (Approved March 1, 2008.)

(*1*) Section 1, Content edited.
(*2*) Section 2, General requirements standard included. Other standards deleted.
(*3*) Section 3, New title and new content.
(*4*) Section 4, Title changed and content edited.
(*5*) Section 5 deleted.
(*6*) Section 6 renumbered as Section 5.
(*7*) Sections 7, 8, 9 deleted.
(*8*) Section 10 Renumbered as Section 6.

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