



**NSAI**  
Standards

Irish Standard  
I.S. EN ISO 8049:2016

# Ferronickel shot - Sampling for analysis (ISO 8049:2016)

## I.S. EN ISO 8049:2016

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

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## National Foreword

I.S. EN ISO 8049:2016 is the adopted Irish version of the European Document EN ISO 8049:2016, Ferronickel shot - Sampling for analysis (ISO 8049:2016)

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EUROPEAN STANDARD

EN ISO 8049

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2016

ICS 77.100

Supersedes EN 28049:1992

English Version

## Ferronickel shot - Sampling for analysis (ISO 8049:2016)

Ferro-nickel en grenailles - Échantillonnage pour  
analyse (ISO 8049:2016)

Ferronickelschrot - Probenahme für Analyse (ISO  
8049:2016)

This European Standard was approved by CEN on 26 May 2016.

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## **European foreword**

This document (EN ISO 8049:2016) has been prepared by Technical Committee ISO/TC 155 "Nickel and nickel alloys".

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2016, and conflicting national standards shall be withdrawn at the latest by December 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 28049:1992.

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### **Endorsement notice**

The text of ISO 8049:2016 has been approved by CEN as EN ISO 8049:2016 without any modification.

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**INTERNATIONAL  
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**ISO  
8049**

Second edition  
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**Ferronickel shot — Sampling for  
analysis**

*Ferro-nickel en grenailles — Échantillonnage pour analyse*



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**ISO 8049:2016(E)**



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## ISO 8049:2016(E)

### Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 155, *Nickel and nickel alloys*.

This second edition cancels and replaces the first edition (ISO 8049:1988). The following change has been made: [5.1.4](#) has been added.

# Ferronickel shot — Sampling for analysis

## 1 Scope

This International Standard defines a method of sampling for analysis of ferronickel lots in the form of shot as specified in ISO 6501 in those cases where lots are constituted either heat by heat or by taking from blended stock.

The purpose is to determine the contents of the various elements

- either from slugs by physical analysis methods (such as X-ray fluorescence or emission spectral analysis), or
- from chips by dry methods (carbon, sulfur) or chemical analysis (other elements).

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 513:2012, *Classification and application of hard cutting materials for metal removal with defined cutting edges — Designation of the main groups and groups of application*

## 3 Form and packaging of product

Grain size: between 3 mm and 50 mm.

Lot tonnage: equal to or greater than 5 t.

In the case of lots taken from blended stock, the nickel content range  $k$  to  $(k + n)$  % of the blended heats shall be chosen as follows:

- $15 \leq k \leq 59$ ;
- $1 \leq n \leq 5$ ;
- $16 \leq k + n \leq 60$ .

NOTE The case of non-blended lots (case  $n \leq 1$ ) is not dealt with in this International Standard.

The ferronickel shot is generally delivered in bulk form in units which may be trucks, containers, or railroad cars, of which the contained masses normally range from 5 t to 30 t, although in the case of railroad cars, loads may have masses up to 60 t.

This type of ferronickel can also be delivered drum-packed (the contained mass of which may be 250 kg).

## 4 Principle

In a single heat, intergrain homogeneity is practically ensured. It is therefore very easy to obtain a representative “primary sample” from a small number of “primary increments”.

In the case of a blended lot composed of several heats, a greater number of primary increments,  $N_p$ , should be taken, but the whole still constitutes the primary sample.

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