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## **Ferrous alloys — Sampling and preparation of samples — General rules**

*Ferro-alliages — Échantillonnage et préparation des échantillons — Règles générales*

Reference number  
ISO 3713:1987 (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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 3713 was prepared by Technical Committee ISO/TC 132, *Ferrous alloys*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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# Ferroalloys — Sampling and preparation of samples — General rules

## 1 Scope and field of application

This International Standard gives general rules for sampling and sample preparation of all types of ferroalloys.

The methods given in this International Standard are applicable to increment sampling of consignments supplied both in bulk and in a packed form during loading or unloading, and to sampling of consignments in stationary stockpiles.

This International Standard specifies the methods of both manual and mechanical sampling.

It should be read in conjunction with the relevant International Standards for individual types of ferroalloys.

## 2 References

ISO 4551, *Ferroalloys — Sampling and sieve analysis*.

ISO 7087, *Ferroalloys — Experimental methods for the evaluation of the quality variation and methods for checking the precision of sampling*.

ISO 7347, *Ferroalloys — Experimental methods for checking the bias of sampling and sample preparation*.

## 3 Definitions

For the purpose of this International Standard, the following definitions apply.

**3.1 lot:** A quantity of a ferroalloy produced and processed under conditions which are presumed uniform.

**3.2 consignment:** A quantity of a ferroalloy delivered at one time. A consignment may consist of one or more lots or parts of a lot.

**3.3 packed unit:** A part of a consignment definitely separated and placed into a box, a barrel, a container, etc.

**3.4 increment:** A quantity of a ferroalloy obtained by a sampling device at one time from a consignment supplied in bulk or in a packed form; also a quantity taken by the increment division method.

**3.5 sub-sample:** A quantity of a ferroalloy consisting of several increments taken from a part of a consignment; also a composite of several increments after having been individually crushed and/or divided as necessary.

**3.6 gross sample:** The quantity of a ferroalloy consisting of all the increments taken from a consignment; also the composite of all the increments or all the sub-samples having been individually crushed and/or divided as necessary.

**3.7 divided sample:** A sample obtained by the method of division.

**3.8 test sample:** Any sample for the determination of the size distribution or chemical composition which is prepared from each increment, from each sub-sample or from a gross sample in accordance with the specified method for the type of sample.

**3.9 representative quality characteristic:** The content of an element or elements, or the size composition, the quality variation of which determines the parameters of sampling of a given ferroalloy and which is liable to payment in accordance with technical requirements for a given ferroalloy.

**3.10 division:** A process of decreasing the mass of a sample according to the prescribed rules for the purposes of obtaining the required mass of a test sample.

**3.11 precision:** The greatest permissible error of the estimation of the average value of a representative quality characteristic expressed as twice the standard deviation (as a percentage) of this characteristic.

**3.12 random sampling:** A method of increment sampling in which each part of a ferroalloy sampled has equal probability of being taken.