
**Preparation of steel substrates before
application of paints and related
products — Test methods for metallic
blast-cleaning abrasives —**

**Part 1:
Sampling**

*Préparation des subjectiles d'acier avant application de peintures et
de produits assimilés — Méthodes d'essai pour abrasifs métalliques
destinés à la préparation par projection —*

Partie 1: Échantillonnage



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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).

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).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 12, *Preparation of steel substrates before application of paints and related products*.

This second edition cancels and replaces the first edition (ISO 11125-1:1993), which has been technically revised.

The main changes compared to the previous edition are as follows:

- [Annex A](#) has been technically revised.

A list of all parts in the ISO 11125 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Preparation of steel substrates before application of paints and related products — Test methods for metallic blast-cleaning abrasives —

Part 1: Sampling

1 Scope

This document specifies a method for the sampling of metallic blast-cleaning abrasives from consignments and for the subdivision of the sample into quantities suitable for undertaking the appropriate test methods specified in other parts of ISO 11125.

This is one of a number of parts of ISO 11125 dealing with the sampling and testing of metallic abrasives for blast-cleaning.

The types of metallic abrasive and requirements for each are contained in the various parts of ISO 11124.

The ISO 11124 and ISO 11125 series have been drafted as a coherent set of International Standards on metallic blast-cleaning abrasives. Information on all parts of both series is given in [Annex A](#).

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>.
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

total quantity

overall quantity of the abrasive to be tested (for example the quantity of a consignment) for which the sampling procedure is to be considered as representative

3.2

sample unit

packaged unit of sale, e.g. pallet, drum, bulk sack, from which *single samples* (3.3) are taken

3.3

single sample

sample obtained from the total quantity by a single sampling operation

Note 1 to entry: This sample is not immediately used for testing.

3.4

mixed sample

sample obtained by mixing a number of *single samples* ([3.3](#))

3.5

reduced sample

sample obtained by reduction of a *mixed sample* ([3.4](#))

Note 1 to entry: In order to obtain a sample quantity which is suitable for testing, all reduced samples but one are discarded after each reduction; the reduction procedure is then repeated if necessary on the sample retained.

3.6

test sample

sample that comprises a mass or volume sufficient for testing, portions of which are immediately used for testing

4 Apparatus

4.1 Sample thief, made from seamless steel tubing with an inside diameter of ~25 mm and a length of ~800 mm.

The tube shall be pointed at one end and have a "T" handle at the other end. Holes shall be bored in a straight line, lengthways along the tube, and spaced at 50 mm intervals. The diameter of the holes shall be determined by the size of the particles to be sampled and shall be approximately three times the size of the largest particle.

NOTE It is usually sufficient to use holes 10 mm in diameter for metallic abrasives.

4.2 Sample divider, riffler or other equipment suitable for splitting a sample into parts.

5 Procedure

5.1 General

The sampling procedure is designed to obtain samples which can be considered representative of the consignment or total quantity under examination. The sampling procedures specified in [Table 1](#) assume that little or no variation in properties takes place within a single sample unit.

Metallic abrasives are susceptible to segregation of particle size during handling and transit from manufacturer to point of final use. Such segregation is minimal however and, where the packaging is in the form of bags on a palletized unit, single samples may be considered representative of sample units. Where the sample unit is in the form of drums, bulk sacks, etc., segregation can become significant. For these sample units, more than one single sample shall be taken.

NOTE Schematic diagrams for sampling and subdivision of samples are given in [Figure 1](#) and [Figure 2](#).

5.2 Number of sample units

The number of sample units (pallets, drums, bulk sacks, etc.) to be sampled in a consignment shall be as specified in [Table 1](#). Samples from different sample units shall not be mixed together.

Table 1 — Number of units to be sampled

Total quantity of the consignment t (tonnes)	Number of units to be sampled
1	1
2 to 5	2
6 to 10	3
11 to 25	5
>25	5 per 25 t

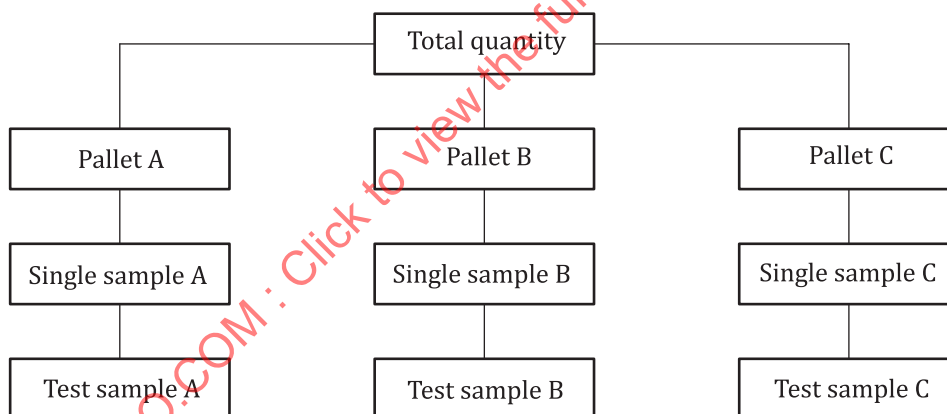
5.3 Sampling of sample units

5.3.1 Pallets with bags, boxes or similar

Take a single sample of ~500 g from one bag, box, etc., on the pallet. This forms the test sample for that pallet (see [Figure 1](#)).

5.3.2 Drums, bulk sacks or similar

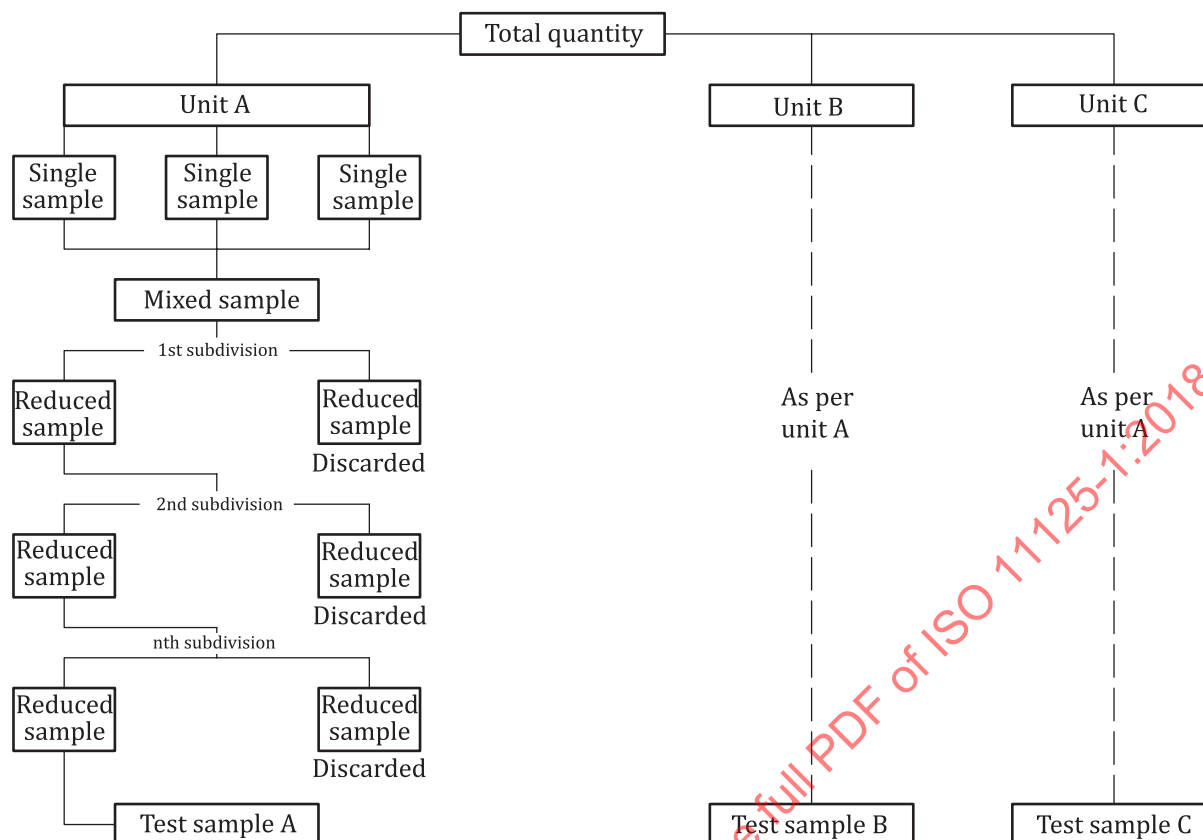
Use the sample thief ([4.1](#)) to obtain three single samples from different areas of the sample unit. Mix the single samples together in a suitable container until a uniform distribution of all particle sizes can be expected. This forms the mixed sample (see [Figure 2](#)).



NOTE 1 The scheme shown is based on a total quantity of 10 t.

NOTE 2 Single samples are taken from one bag, box, etc., selected at random from each pallet.

Figure 1 — Sampling scheme for pallets with bags, boxes or similar



NOTE The scheme shown is based on a total quantity of 10 t.

Figure 2 — Sampling scheme for drums, bulk sacks or similar

5.4 Reduction of sample size

No reduction is necessary on single samples from palletized sample units.

Subdivide mixed samples from other sample units mechanically, using a sample divider (4.2). Discard all but one of the reduced samples. Continue the operation until a test sample of ~500 g is obtained.

5.5 Test sample

A test sample of ~500 g provides sufficient test material to carry out all the test procedures in ISO 11125-2 to ISO 11125-7 (see Annex A).

Store the sample in a sealed container until required. Remix the test sample before taking portions for testing to ensure uniformity is maintained.

Do not remix used portions with the remaining test sample.

6 Sample identification

Each sample shall be clearly identified as to its origin. Test samples shall carry at least the following information:

- all details necessary to identify the product in accordance with the appropriate part of ISO 11124 (see Annex A), if applicable;
- the consignment identification details, e.g. supplier's name, order number, date of despatch/receipt, etc.;

- c) any product traceability reference which relates to the unit sampled.

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