International Standard

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Third edition
2026-08

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

Part 1: General introduction and classification

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

Partie 1: Introduction générale et classification

Reference number
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Contents

Page

Foreword ..... **iv**
Introduction ..... **v**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 Classification **2**
4.1 Abrasive type 2
4.2 Initial particle shape 2
4.3 Particle size range 3
5 Designation of abrasives **3**
6 Package identification and lot traceability **3**
Bibliography **4**

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Foreword

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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*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 139, *Paints and varnishes*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 11124-1:2018), which has been technically revised.

The main changes are as follows:

— definition (3.6) added;

— Table 1 and Table 2 have been technically revised;

— Annex A has been removed and references added to bibliography.

A list of all parts in ISO 11124 (all parts) [1] 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.

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Introduction

This document is one of a number of parts of ISO 11124 (all parts) [1] specifying requirements for metallic abrasives for blast-cleaning.

Test methods for metallic blast-cleaning abrasives are given in the various parts of ISO 11125 (all parts) [2].

The requirements for non-metallic abrasives commonly used for blast-cleaning are specified in the various parts of ISO 11126 (all parts) [3]. Test methods to be used to define these requirements are contained in the various parts of ISO 11127 (all parts) [4] .

Abrasive blast-cleaning techniques are widely used to clean and prepare surfaces. During the development of a series of International Standards dealing with the preparation of steel substrates before application of paints and related products, it was decided that a need existed for a series of International Standards covering those blast-cleaning abrasives commonly used in preparation of steelwork.

The type of blast-cleaning abrasive used and its particle shape can significantly affect the surface appearance and profile form of the treated surface. ISO 8501-1 [5] provides informative photographic examples of the change in appearance imparted to steel when blast-cleaned with different abrasive types.

ISO 8503-2 [6] describes the assessment of the surface roughness of prepared surfaces using comparators. Table 1 of this document identifies the type of comparator to be used with each of the blast-cleaning abrasives considered.

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

Part 1: General introduction and classification

1 Scope

WARNING — Equipment, materials and abrasives used for surface preparation can be hazardous. It is important to ensure that adequate instructions are given and that all required precautions are exercised.

This document describes a classification of metallic blast-cleaning abrasives for the preparation of steel substrates before application of paints and related products.

It specifies the characteristics which are required for the complete designation of such abrasives.

This document applies to abrasives supplied in the "new" or unused condition only. It does not apply to abrasives either during or after use.

NOTE Although this document has been developed specifically to meet requirements for the preparation of steelwork, the properties specified are generally appropriate when preparing other material surfaces, or components, using blast-cleaning techniques. These techniques are described in ISO 8504-2 [7].

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 terminology 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
blast-cleaning abrasive
solid material intended to be used for *abrasive blast-cleaning* (3.2)

3.2
abrasive blast-cleaning
impingement of a high-kinetic-energy stream of *blast-cleaning abrasive* (3.1) onto the surface to be prepared

3.3
shot
particles that are predominantly round, that have a length of less than twice the maximum particle width and that do not have edges, broken faces or other sharp surface defects

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