



BSI Standards Publication

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

Part 1: General introduction and classification

National foreword

This British Standard is the UK implementation of EN ISO 11124-1:2018. It is identical to ISO 11124-1:2018. It supersedes BS EN ISO 11124-1:1997, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee STI/21, Paint systems and surface preparation for metallic substrates.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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English Version

**Preparation of steel substrates before application of
paints and related products - Specifications for metallic
blast-cleaning abrasives - Part 1: General introduction
and classification (ISO 11124-1:2018)**

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 (ISO 11124-1:2018)

Vorbereitung von Stahloberflächen vor dem
Auftragen von Beschichtungsstoffen - Anforderungen
an metallische Strahlmittel - Teil 1: Allgemeine
Einleitung und Einteilung (ISO 11124-1:2018)

This European Standard was approved by CEN on 12 August 2018.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

This document (EN ISO 11124-1:2018) has been prepared by Technical Committee ISO/TC 35 "Paints and varnishes" in collaboration with Technical Committee CEN/TC 139 "Paints and varnishes" the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by March 2019, and conflicting national standards shall be withdrawn at the latest by March 2019.

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

This document supersedes EN ISO 11124-1:1997.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 11124-1:2018 has been approved by CEN as EN ISO 11124-1:2018 without any modification.

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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).

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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 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 the following URL: 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 11124-1:1993), which has been technically revised.

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

- [4.3](#), [Clause 6](#) and [Annex A](#) have been technically revised.

A list of all parts in the ISO 11124 series can be found on the ISO website.

Introduction

This document is one of a number of parts of ISO 11124 specifying requirements for metallic abrasives for blast-cleaning.

Test methods for metallic blast-cleaning abrasives are given in the various parts of ISO 11125 (see [Annex A](#)).

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

Abrasive blast-cleaning techniques are widely used to clean and prepare surfaces. During work on 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.

The informative supplement to ISO 8501-1 provides photographic examples of the change in appearance imparted to steel when blast-cleaned with different abrasive types.

ISO 8503-2 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.

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

Part 1: General introduction and classification

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.

1 Scope

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 preparation of steelwork, the properties specified will generally be appropriate for use when preparing other material surfaces, or components, using blast-cleaning techniques. These techniques are described in ISO 8504-2.

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

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) on to 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