

**SLOVENSKI STANDARD**  
**oSIST prEN ISO 11124-1:2017**  
**01-december-2017**

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**Priprava jeklenih podlag pred nanašanjem barv in sorodnih premazov -  
Specifikacije za kovinske granulate za peskanje - 1. del: Splošna predstavitev in  
razvrstitev(ISO/DIS 11124-1:2017)**

Preparation of steel substrates before application of paints and related products -  
Specifications for metallic blast-cleaning abrasives - Part 1: General introduction and  
classification (ISO/DIS 11124-1:2017)

Vorbereitung von Stahloberflächen vor dem Auftragen von Beschichtungsstoffen -  
Anforderungen an metallische Strahlmittel - Teil 1: Allgemeine Einleitung und Einteilung  
(ISO/DIS 11124-1:2017)

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/DIS 11124-1:2017)

**Ta slovenski standard je istoveten z: prEN ISO 11124-1**

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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

*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*

ICS: 25.220.10

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## ISO/DIS 11124-1:2017(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)).

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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 World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

The committee responsible for this document is ISO/TC35, *Paints and varnishes*, Subcommittee SC12, *Preparation of steel substrates before application of paints and related products*.

This second edition cancels and replaces the first edition (1993), [clauses 4.3, 6](#) and annexes A.1 and A.2 of which have been technically revised.

ISO 11124 consists of the following parts, under the general title *Preparation of steel substrates before application of paints and related products — Specifications for metallic blast-cleaning abrasives*:

- *Part 1: General introduction and classification*
- *Part 2: Chilled-iron grit*
- *Part 3: High-carbon cast-steel shot and grit*
- *Part 4: Low-carbon cast-steel shot*
- *Part 5: Cut steel wire*

At the time of publication of this part of ISO 11124, ISO 11124-5 was in course of preparation.

[Annex A](#) of this part of ISO 11124 is for information only.

## Introduction

This 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 part of ISO 11124 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

**WARNING** — Equipment, materials and abrasives used for surface preparation can be hazardous. Many national regulations exist for those materials and abrasives that are considered to be hazardous during or after use (waste management), such as free silica or carcinogenic or toxic substances. It is important to ensure that adequate instructions are given and that all required precautions are exercised.

### 1 Scope

This part of ISO 11124 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 part of ISO 11124 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 part of ISO 11124 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 part of ISO 11124, the following terms and definitions apply.

#### 3.1

##### **blast-cleaning abrasive**

solid material intended to be used for abrasive blast-cleaning

#### 3.2

##### **abrasive blast-cleaning**

impingement of a high-kinetic-energy stream of blast-cleaning abrasive 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

#### 3.4

##### **grit**

particles that are predominantly angular, that have fractured faces and sharp edges and that are less than half-round in shape

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### 3.5 cylindrical

sharp-edges particles, having a diameter to length ratio of 1:1, cut so that their faces are approximately at right angles to their centreline

## 4 Classification

### 4.1 Abrasive type

Blast-cleaning abrasives shall be classified according to material, origin or manufacture. [Table 1](#) gives the abbreviated coding which shall be used to identify each of the types considered.

NOTE The metallic abrasives listed in [Table 1](#) are those commonly used for the preparation of steel substrates before application of paints and related products. The list is not intended to be exhaustive.

**Table 1 — Commonly used metallic (M) blast-cleaning abrasives for steel substrate preparation**

Type			Abbreviation	Initial particle shape (see 4.2)	Comparator <sup>A)</sup>
Metallic (M) blast-cleaning abra- sives	Cast iron	Chilled	M/CI	G	G
	Cast steel	H i g h - carbon	M/HCS	S or G	SB)
		L o w - carbon	M/LCS	S	S
	Cut steel wire	-	M/CW	C	SB)

<sup>A)</sup> Comparator to be used when assessing the resultant surface profile. The method for evaluating surface profile by comparator is described in ISO 8503-2 (see Introduction).

<sup>B)</sup> Certain types of abrasive rapidly change their shape when used. As soon as this happens the appearance of the profile changes and becomes more similar to that of the “shot” comparator.

### 4.2 Initial particle shape

The particle shape characterizes the geometric form of the abrasive particles. Basic forms of metallic blast-cleaning abrasives are specified in [Table 2](#), together with the symbol which shall be used to describe each.

NOTE As the particle shape of an abrasive might change during use, only the initial particle shape is given in the various parts of ISO 11124.

**Table 2 — Initial particle shape**

Designation and initial particle shape	Symbol
Shot — round	S
Grit — angular, irregular	G
Cylindrical – sharp-edges	C

### 4.3 Particle size range

Metallic blast-cleaning abrasives consist of mixtures of differently sized particles. These shall be classified into size ranges or grades. A 3-digit number shall be used to indicate each particular size range or grade. This number indicates the nominal particle size in millimetres × 100.