INTERNATIONAL STANDARD

ISO 11126-7

Second edition
2018-08

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

Part 7: Fused aluminium oxide

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

Partie 7: Oxyde d'aluminium fondu

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Contents

Page

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).

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 11126-7:1995), which has been technically revised. It also incorporates Technical Corrigendum ISO 11126-7:1995/Cor 1:1999.

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

— Tables 1 and 2 and Annex A have been technically revised.

— Annex B has been added.

A list of all parts in the ISO 11126 series can be found on the ISO website.

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

Part 7: Fused aluminium oxide

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 specifies requirements for fused aluminium oxide abrasives, as supplied for blast-cleaning processes. It specifies ranges of particle sizes and values for apparent density, bulk density, Mohs hardness, moisture content, conductivity of aqueous extract and water-soluble chlorides.

The requirements specified in this document apply to abrasives supplied in the "new" condition only. They do not apply to abrasives either during or after use.

Test methods for non-metallic blast-cleaning abrasives are given in the various parts of ISO 11127.

NOTE 1 Information on commonly referenced national and international standards is given in Bibliography.

NOTE 2 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

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 11127-1, *Preparation of steel substrates before application of paints and related products — Test methods for non-metallic blast-cleaning abrasives — Part 1: Sampling*

ISO 11127-2, *Preparation of steel substrates before application of paints and related products — Test methods for non-metallic blast-cleaning abrasives — Part 2: Determination of particle size distribution*

ISO 11127-3, *Preparation of steel substrates before application of paints and related products — Test methods for non-metallic blast-cleaning abrasives — Part 3: Determination of apparent density*

ISO 11127-4, *Preparation of steel substrates before application of paints and related products — Test methods for non-metallic blast-cleaning abrasives — Part 4: Assessment of hardness by a glass slide test*

ISO 11127-5, *Preparation of steel substrates before application of paints and related products — Test methods for non-metallic blast-cleaning abrasives — Part 5: Determination of moisture*

ISO 11127-6, *Preparation of steel substrates before application of paints and related products — Test methods for non-metallic blast-cleaning abrasives — Part 6: Determination of water-soluble contaminants by conductivity measurement*

ISO 11127-7, *Preparation of steel substrates before application of paints and related products — Test methods for non-metallic blast-cleaning abrasives — Part 7: Determination of water-soluble chlorides*

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 https://www.electropedia.org/

3.1
fused aluminium oxide
synthetic mineral blast-cleaning abrasive, which is classified as two types, A and WA

Note 1 to entry: Type A: This type is mainly composed of crystalline corundum which is brown in colour and consists of a solid solution containing a minimum of 94 % aluminium oxide and a maximum of 4 % titanium dioxide.

Note 2 to entry: Type A is produced by fusing bauxite with the appropriate quantity of titanium dioxide and reducing agent in an electric furnace, cooling to form lumps and then crushing and sieving to size.

Note 3 to entry: Type WA: This type consists of crystalline corundum which is whitish in colour and contains at least 99 % aluminium oxide. It is produced by fusing pure grade Bayer alumina in an electric arc furnace followed by a slow solidification process.

4 Designation of abrasives

Fused aluminium oxide abrasives shall be identified by "Abrasive ISO 11126" and the abbreviation N/FA-A or N/FA-WA indicating non-metallic, fused aluminium oxide abrasive type A or WA. This shall be followed, without spaces, by an oblique stroke and then the symbol G to indicate the required particle shape of the abrasive, when purchased, as grit.

The designation shall be completed by numbers denoting the particle size range, in millimetres, required (see Table 1).

Table 1 — Particle size distribution

Particle size range[a] mm			**0,045 to 0,180**	**0,125 to 0,300**	**0,212 to 0,500**	**0,300 to 0,710**	**0,355 to 0,850**	**0,500 to 1,18**	**0,850 to 2,00**	**1,18 to 2,80**
Oversize	Sieve size	mm	0,180	0,300	0,500	0,710	0,850	1,18	2,00	2,80
	Residue % (mass fraction)	max.	0	0	0	0	0	0	0	0
Nominal size	Sieve size	mm	0,045	0,125	0,212	0,300	0,355	0,500	0,850	1,18
	Residue % (mass fraction)	min.	97	97	97	97	97	97	97	97
Undersize	Sieve size	mm	0,045	0,125	0,212	0,300	0,355	0,500	0,850	1,18
	Through-flow % (mass fraction)	max.	3	3	3	3	3	3	3	3

[a] By agreement between the interested parties, abrasives of different particle size ranges may be mixed together. Details of proportions of nominal size, oversize and undersize shall be specified.

EXAMPLE

Abrasive ISO 11126 N/FA-A/G 0,85-2,00