

SVENSK STANDARD

SS-EN ISO 3252:2019



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Pulvermetallurgi – Termer och definitioner (ISO 3252:2019)

Powder metallurgy – Vocabulary (ISO 3252:2019)

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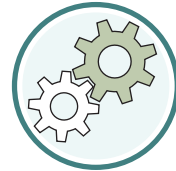
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Denna standard ersätter SS-EN ISO 3252, utgåva 1

The European Standard EN ISO 3252:2019 has the status of a Swedish Standard. This document contains the official version of EN ISO 3252:2019.

This standard supersedes the SS-EN ISO 3252, edition 1

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Denna standard är framtagen av kommittén för Pulvermetallurgi, SIS/TK 133.

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EUROPEAN STANDARD

EN ISO 3252

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2019

ICS 01.040.77; 77.160

Supersedes EN ISO 3252:2000

English Version

Powder metallurgy - Vocabulary (ISO 3252:2019)

Métallurgie des poudres -
Vocabulaire (ISO 3252:2019)

Pulvermetallurgie - Begriffe (ISO 3252:2019)

This European Standard was approved by CEN on 9 August 2019.

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European foreword

This document (EN ISO 3252:2019) has been prepared by Technical Committee ISO/TC 119 "Powder metallurgy" in collaboration with Technical Committee CEN/SS M11 "Powder metallurgy" the secretariat of which is held by CCMC.

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of an identical text or by endorsement, at the latest by March 2020, and conflicting national standards shall be withdrawn at the latest by March 2020.

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Endorsement notice

The text of ISO 3252:2019 has been approved by CEN as EN ISO 3252:2019 without any modification.

Introduction

The terms are classified alphabetically under the following main headings:

- powders;
- forming;
- sintering and characteristics of sintered materials;
- post-sintering treatments;
- powder metallurgy materials.

NOTE Additional information on certain terms defined can be found in the standards given in Notes to entry. These are listed in the Bibliography.

Powder metallurgy — Vocabulary

1 Scope

This document defines terms relating to powder metallurgy. Powder metallurgy is the branch of metallurgy which relates to the manufacture of metallic powders, or of articles made from such powders with or without the addition of non-metallic powders, by the application of forming and sintering processes.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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 Terms relating to powders

3.1.1

acicular

needle-shaped

Note 1 to entry: See [Figure 1](#).

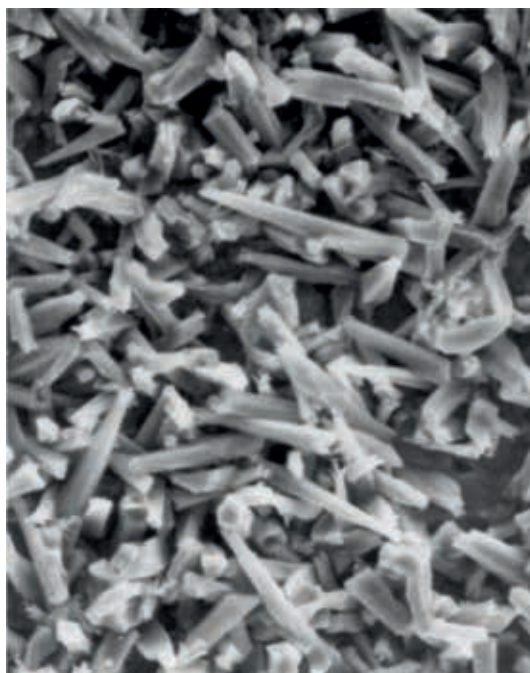


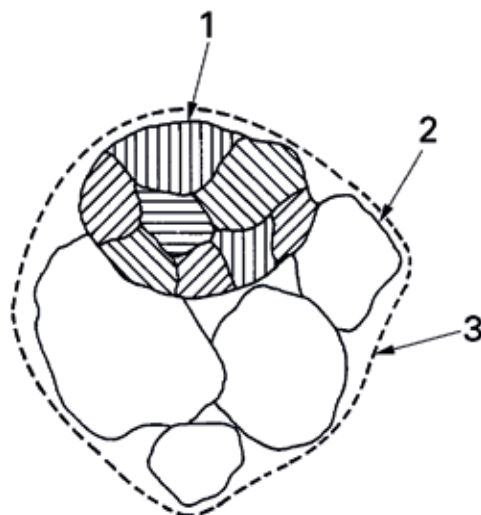
Figure 1 — Acicular

3.1.2

agglomerate

several particles adhering together

Note 1 to entry: See [Figure 2](#).



Key

- 1 grain
- 2 particle
- 3 agglomerate

Figure 2 — Diagrammatic representation of grain, particle and agglomerate

3.1.3

alloyed powder

metal powder consisting of at least two constituents that are partially or completely alloyed with each other

3.1.4

angle of repose

basal angle of a pile formed by a powder when freely poured under specified conditions on to a horizontal surface

3.1.5

angular

sharp-edged or roughly polyhedral

Note 1 to entry: See [Figure 3](#).

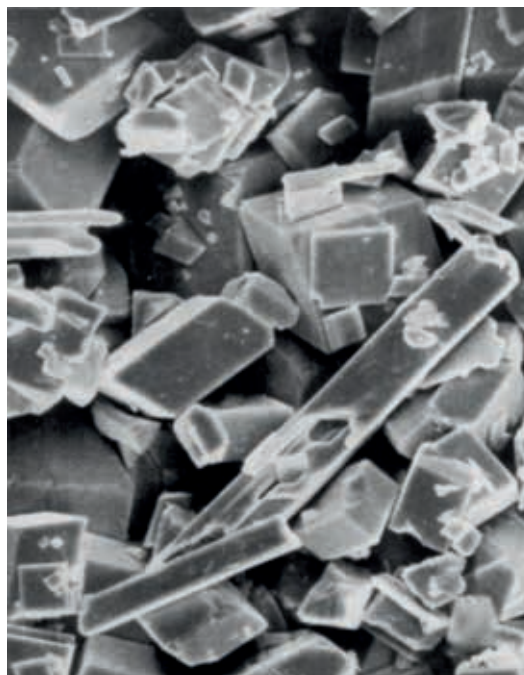


Figure 3 — Angular

3.1.6

apparent density

mass per unit volume of a powder obtained following specific methods

Note 1 to entry: For example, ISO 3923-1 related to free-flowing powders and ISO 3923-2 related to non-free-flowing powders.

3.1.7

atomization

dispersion of a molten metal into particles by a rapidly moving gas or liquid stream or by mechanical means

[SOURCE: ASTM B243-17]

3.1.8

atomized metal powder

metal powder produced by *atomization* ([3.1.7](#))

3.1.9

binder

material added to the powder mix to increase the *green strength* ([3.2.47](#)) of the compact or to counteract dusting and *segregation* ([3.1.75](#)) of fine particulate mix constituents, and which is expelled during sintering

Note 1 to entry: In hard metals, it is also used for material (binder metal, usually of lower melting point) added to a powder mixture for the specific purpose of cementing together powder particles which alone would not sinter into a strong body.

Note 2 to entry: Cementing medium is also used in the field of hard metals.

3.1.10

blended powder

powder made by *blending* ([3.1.11](#)) powders