
Coating powders —

**Part 1:
Determination of particle size
distribution by sieving**

Poudres pour revêtement —

*Partie 1: Détermination de la distribution granulométrique par
tamisage*



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Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	2
5 Apparatus	2
6 Sampling	4
7 Choice of sieving method and sieve selectivity	4
8 Preparation of the test sieve	5
9 Procedure	5
9.1 Number of determinations	5
9.2 Manual sieving (with mesh sizes greater than 100 µm)	5
9.3 Machine sieving using an air-jet sieve apparatus	5
9.4 Machine sieving using vibration mechanism	6
10 Expression of results	6
11 Precision	7
12 Test report	7
Annex A (informative) Nominal sizes of test sieves	8
Bibliography	9

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 of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

This second edition cancels and replaces the first edition (ISO 8130-1:1992), which has been technically revised.

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

- a “Terms and definitions” clause has been added;
- a “Principle” clause has been added;
- the choice of sieving method and sieve selectivity has been added;
- manual sieving and sieving using vibration mechanism has been added;
- the text has been editorially revised and the normative references have been updated.

A list of all the parts in the ISO 8130 series 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.

Coating powders —

Part 1:

Determination of particle size distribution by sieving

1 Scope

This document specifies a method for the determination of the particle size distribution of coating powders by sieve analysis. Particle size distributions with a maximum of less than 100 μm is determined by laser diffraction, ISO 8130-13. This method is used especially for determining the oversize material or for the presence of contamination and can be used as a quality control procedure (“go”/“no go” test) by checking the amount retained on a single sieve.

The following particle sizes are typical for coating powders, however the particle size can deviate depending on the application:

- thin-film technology: 1 μm to 63 μm ;
- electrostatic coating: 10 μm to 200 μm ;
- fluidizing-bed method: 100 μm and above.

NOTE Sieves with a mesh size smaller than 32 μm are not practical and are likely to become blind during use.

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 565, *Test sieves — Metal wire cloth, perforated metal plate and electroformed sheet — Nominal sizes of openings*

ISO 3310-1, *Test sieves — Technical requirements and testing — Part 1: Test sieves of metal wire cloth*

ISO 3310-2, *Test sieves — Technical requirements and testing — Part 2: Test sieves of perforated metal plate*

ISO 8130-14, *Coating powders — Part 14: Vocabulary*

ISO 15528, *Paints, varnishes and raw materials for paints and varnishes — Sampling*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 8130-14 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/>