
Coating powders —

Part 13:

Particle size analysis by laser diffraction

Poudres pour revêtement —

Partie 13: Analyse granulométrique par diffraction laser



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this part of ISO 8130 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 8130-13 was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

ISO 8130 consists of the following parts, under the general title *Coating powders*:

- *Part 1: Determination of particle size distribution by sieving*
- *Part 2: Determination of density by gas comparison pycnometer (referee method)*
- *Part 3: Determination of density by liquid displacement pycnometer*
- *Part 4: Calculation of lower explosion limit*
- *Part 5: Determination of flow properties of a powder/air mixture*
- *Part 6: Determination of gel time of thermosetting coating powders at a given temperature*
- *Part 7: Determination of loss of mass on stoving*
- *Part 8: Assessment of the storage stability of thermosetting powders*
- *Part 9: Sampling*
- *Part 10: Determination of deposition efficiency*
- *Part 11: Inclined-plane flow test*
- *Part 12: Determination of compatibility*
- *Part 13: Particle size analysis by laser diffraction*

Coating powders —

Part 13:

Particle size analysis by laser diffraction

1 Scope

This part of ISO 8130 is one of a series of standards dealing with the sampling and testing of paints, varnishes and related products.

It specifies a method for the determination of the equivalent-sphere particle size distribution of coating powders by laser diffraction and is suitable for discriminating between particles of the size range from 1 μm to 300 μm .

This method is applicable only for dry powders.

NOTE Most instruments will be capable of discriminating between particles of sizes beyond these limits.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 8130. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 8130 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 3270:1984, *Paints and varnishes and their raw materials — Temperatures and humidities for conditioning and testing*

ISO 8130-9:1992, *Coating powders — Part 9: Sampling*

ISO 9276-1:1998, *Representation of results of particle size analysis — Part 1: Graphical representation*

ISO 13320-1:1999, *Particle size analysis — Laser diffraction methods — Part 1: General principles*

3 Term and definition

For the purposes of this part of ISO 8130, the following term and definition apply.

3.1

obscuration

percentage or fraction of incident light that is attenuated due to extinction (scattering and/or absorption) by the particles of a coating powder

NOTE A full list of definitions is given in ISO 13320-1.