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Coating powders - Part 15: Rheology (ISO 8130-15:2023)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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Coating powders - Part 15: Rheology (ISO 8130-15:2023)

Poudres pour revêtement - Partie 15: Rhéologie (ISO
8130-15:2023)

Pulverlacke - Teil 15: Rheologie (ISO 8130-15:2023)

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EN ISO 8130-15:2023 (E)

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European foreword

The text of ISO 8130-15:2023 has been prepared by Technical Committee ISO/TC 35 "Paints and varnishes" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 8130-15:2023 by Technical Committee CEN/TC 139 "Paints and varnishes" the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by May 2024, and conflicting national standards shall be withdrawn at the latest by May 2024.

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Coating powders — **Part 15:** **Rheology**

Poudres pour revêtement —
Partie 15: Rhéologie



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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
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ISO 8130-15:2023(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).

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

A list of all parts in the ISO 8130 series can be found on the ISO website.

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Introduction

The powder coating process is dependent on several material variables, whose presence within the powder mixture is critical for ensuring smooth operation. A precise understanding of the fluidization behaviour is important for optimal processing parameters in the fluidized bed, during pneumatic conveyance and the spraying process. In addition, understanding the long-term stability during storage or behavioural change during processing can also help to improve the reuse of powder coatings. Furthermore, melt rheology is introduced to understand the melt flow properties of a given powder coating system, to provide information after spraying, on the powder melt viscosity and gel point. The methods in this document can be used for quality-control and detailed studies.

Coating powders —

Part 15: Rheology

1 Scope

This document specifies methods for the determination of the rheological behaviour of a coating powder both in particulate and molten form.

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 3219-1, *Rheology — Part 1: Vocabulary and symbols for rotational and oscillatory rheometry*

ISO 3219-2, *Rheology — Part 2: General principles of rotational and oscillatory rheometry*

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

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

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