

STANDARD

**8130-8**

First edition  
1994-08-15

**ANSI Internat Doc Sec**

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**Coating powders —**

**Part 8:**

Assessment of the storage stability of  
thermosetting powders

*Poudres pour revêtement —*

*Partie 8: Estimation de la stabilité au stockage des poudres  
thermodurcissables*



Reference number  
ISO 8130-8:1994(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.

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.

International Standard ISO 8130-8 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*

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International Organization for Standardization  
Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

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— *Part 9: Sampling*

— *Part 10: Determination of deposition efficiency*

— *Part 11: Inclined plane flow test*

— *Part 12: Compatibility*

— *Part 13: Terms and definitions*

Annexes A and B form an integral part of this part of ISO 8130.

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## Introduction

Coating powders are subject to two distinct ageing mechanisms: one involving the physical state of the powder and the other its chemical reactivity. Changes in the coating powder may lead to deterioration in the physical and chemical properties of the final coating.

This part of ISO 8130 describes the procedures to be adopted in assessing the tendency of a thermosetting coating powder to maintain its physical and chemical integrity after being subjected to defined storage conditions.

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## Coating powders —

### Part 8:

## Assessment of the storage stability of thermosetting powders

### 1 Scope

This part of ISO 8130 deals with the estimation of the storage stability of thermosetting coating powders. It specifies the procedures for determining the changes both in the physical state of a thermosetting coating powder and in the chemical reactivity of the powder, together with its capacity to form a satisfactory final coating. A correlation between changes in different properties is not to be expected. Similarly, there may be no correlation between the results obtained under different storage conditions.

The results of the procedures specified in this part of ISO 8130 give an indication of the ability of the coating powder to withstand the effects of storage prior to application.

### 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 8130. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 8130 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 1514:1993, *Paints and varnishes — Standard panels for testing.*

ISO 2808:1991, *Paints and varnishes — Determination of film thickness.*

ISO 2813:1994, *Paints and varnishes — Determination of specular gloss of non-metallic paint films at 20 degrees, 60 degrees and 85 degrees.*

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

ISO 6272:1993, *Paints and varnishes — Falling-weight test.*

ISO 8130-6:1992, *Coating powders — Part 6: Determination of gel time of thermosetting coating powders at a given temperature.*

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

### 3 Principle

The thermosetting coating powder is subjected to artificial storage conditions for a specified period of time at a defined temperature. Subsequently, any change in the ability of the powder to flow freely and its tendency to agglomerate or to cake according to a given rating scheme is noted. Any change in the ability of the powder to react chemically and to form a satisfactory final coating is then assessed.