

Coating powders - Part 10: Determination of deposition efficiency

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 8130-10:2010 sisaldab Euroopa standardi EN ISO 8130-10:2010 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 31.12.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 10.11.2010.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 8130-10:2010 consists of the English text of the European standard EN ISO 8130-10:2010.

This standard is ratified with the order of Estonian Centre for Standardisation dated 31.12.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 10.11.2010.

The standard is available from Estonian standardisation organisation.

ICS 87.040

Standardite reprodutseerimis- ja levitamiseõigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
Aru 10 Tallinn 10317 Eesti; www.evs.ee; Telefon: 605 5050; E-post: info@evs.ee

ICS 87.040

English Version

**Coating powders - Part 10: Determination of deposition
efficiency (ISO 8130-10:1998)**

Poudres pour revêtement - Partie 10: Détermination du
rendement d'application (ISO 8130-10:1998)

Pulverlacke - Teil 10: Bestimmung des Abscheide-
Wirkungsgrades (ISO 8130-10:1998)

This European Standard was approved by CEN on 16 October 2010.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Foreword

The text of ISO 8130-10:1998 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 8130-10:2010 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 2011, and conflicting national standards shall be withdrawn at the latest by May 2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of ISO 8130-10:1998 has been approved by CEN as a EN ISO 8130-10:2010 without any modification.

Coating powders –

Part 10:

Determination of deposition efficiency

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 determining the percentage by mass of a sprayed coating powder which is actually deposited on a standard test target when powder is sprayed at the target from a spray gun under standard conditions.

The method is applicable to powders applied by corona charging or tribo charging.

The method may be used to compare the deposition efficiency of different powders with the same gun or of different guns with the same powder.

This method should only be used for comparison when powders or guns are evaluated consecutively, as the influence of the environment and the equipment can vary significantly with time and location.

The results are dependent on the following properties of the powder:

- a) chemical composition;
- b) density;
- c) particle size distribution;
- d) particle shape;
- e) flow properties of its mixture in air;
- f) moisture content;

and also on the test conditions, including:

- g) spray pattern produced by the gun;

- h) gun air pressure;
- i) gun voltage;
- j) gun polarity;
- k) air humidity.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of ISO 8130. At the time of publication, the edition indicated was 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 IEC and ISO maintain registers of currently valid International Standards.

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

3 Definitions

For the purposes of this part of ISO 8130, the following definition applies:

3.1 deposition efficiency: The proportion of the mass of powder deposited compared to the mass of powder sprayed, expressed as a percentage.

4 Principle

The method consists of spraying charged powder, at a known flow rate and under known conditions of atmospheric temperature and humidity, at the central one of five similar steel targets each wrapped in aluminium foil. The mass of powder deposited on the central target is determined, from which the deposition efficiency is calculated.

The operation is performed in an air extraction booth.

5 Apparatus

5.1 Set of targets, consisting of five steel tubes of external diameter 25 mm and length 500 mm. The tubes have a hole drilled at one end to enable the targets to be hung vertically. Each target shall be properly earthed.

5.2 Clean aluminium foil, of commercial quality.