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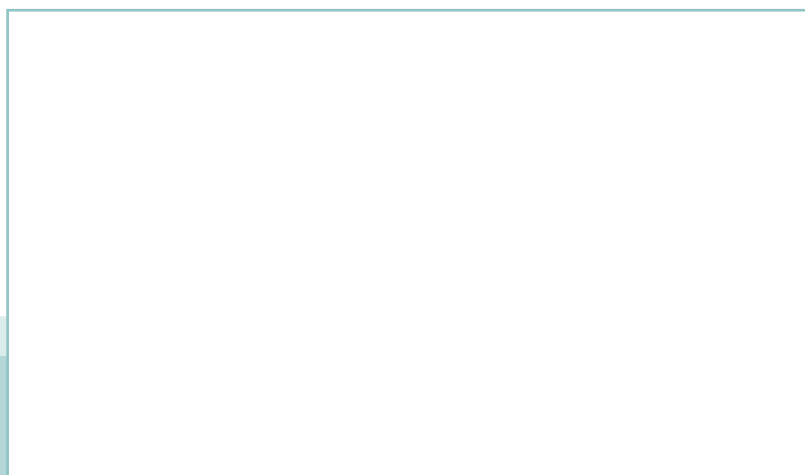
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Oorganiska ytbeläggningar – Metoder för duktilitetsmätning – Översikt (ISO 8401:2017)

Metallic coatings – Review of methods of measurement of ductility (ISO 8401:2017)



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Europastandarden EN ISO 8401:2017 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN ISO 8401:2017.

Denna standard ersätter SS-EN ISO 8401, utgåva 1.

The European Standard EN ISO 8401:2017 has the status of a Swedish Standard. This document contains the official version of EN ISO 8401:2017.

This standard supersedes the Swedish Standard SS-EN ISO 8401, edition 1.

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Denna standard är framtagen av kommittén för Oorganiska ytbeläggningar, SIS/TK 116.

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EUROPEAN STANDARD

EN ISO 8401

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2017

ICS 17.040.20

Supersedes EN ISO 8401:1994

English Version

Metallic coatings - Review of methods of measurement of ductility (ISO 8401:2017)

Revêtements métalliques - Vue d'ensemble sur les méthodes de mesurage de la ductilité (ISO 8401:2017)

Metallische Schutzschichten - Überblick über Verfahren zur Messung der Duktilität (ISO 8401:2017)

This European Standard was approved by CEN on 8 February 2017.

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European Foreword

This document (EN ISO 8401:2017) has been prepared by Technical Committee ISO/TC 107 "Metallic and other inorganic coatings" in collaboration with Technical Committee CEN/TC 262 "Metallic and other inorganic coatings" the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by August 2017 and conflicting national standards shall be withdrawn at the latest by August 2017.

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Endorsement notice

The text of ISO 8401:2017 has been approved by CEN as EN ISO 8401:2017 without any modification.

Metallic coatings — Review of methods of measurement of ductility

1 Scope

This document specifies general methods for measuring the ductility of metallic coatings of thickness below 200 µm prepared by electroplating, autocatalytic deposition or other processes.

It is applicable to the following methods:

- tests on unsupported foils (separated from the substrate);
- tests of coatings on substrates.

It does not apply to International Standards that include specific methods of testing for individual coatings. In these cases, the methods specified are used in preference to the methods described in this document and are agreed upon beforehand by the supplier and the purchaser.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

ductility

ability of a metallic or other coating to undergo plastic or elastic deformation, or both, without fracture or cracking

3.2

linear elongation

ratio of the elongation, Δl , to a definite initial length, l_0 , of the test piece

Note 1 to entry: This is taken as a measure of ductility.

Note 2 to entry: Often, this ratio is expressed as a percentage.

Note 3 to entry: Normally, the test pieces are elongated [see [Figure 1 a\)](#)]. With some bending tests, the outer layer of the test piece, i.e. the plating, is elongated. In bulge tests, however, the surface of the foil is enlarged, requiring calculation of linear elongation from the reduction in the thickness. Using the component of deformation (stretching) in only one axis would give false information about the ductility of the material [see [Figure 1 b\)](#)]. In those cases, the thinning of the foil, as calculated from the increase in the surface area, is a better measure of the ductility of the material (see [Annex B](#)).