

<b>STN</b>	<b>Kontinuálne lakované kovy Skúšobné metódy Časť 1: Hrúbka povlaku</b>	<b>STN EN 13523-1</b>  03 8761
------------	---	--

Coil coated metals - Test methods - Part 1: Film thickness

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

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/17

Obsahuje: EN 13523-1:2017

Oznámením tejto normy sa ruší  
STN EN 13523-1 (03 8761) z júna 2010

**124987**

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2017  
Podľa zákona č. 264/1999 Z. z. o technických požiadavkách na výrobky a o posudzovaní zhody a o zmene a doplnení niektorých zákonov v znení neskorších predpisov sa slovenská technická norma a časti slovenskej technickej normy môžu rozmnožovať alebo rozširovať len so súhlasom slovenského národného normalizačného orgánu.



EUROPEAN STANDARD

**EN 13523-1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2017

ICS 17.040.20; 25.220.60

Supersedes EN 13523-1:2009

English Version

**Coil coated metals - Test methods - Part 1: Film thickness**Tôles prélaquées - Méthodes d'essai - Partie 1 :  
Épaisseur du revêtementBandbeschichtete Metalle - Prüfverfahren - Teil 1:  
Schichtdicke

This European Standard was approved by CEN on 18 December 2016.

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-CENELEC 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-CENELEC 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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

<b>Contents</b>	<b>Page</b>
<b>European foreword</b> .....	<b>3</b>
<b>1 Scope</b> .....	<b>5</b>
<b>2 Normative references</b> .....	<b>5</b>
<b>3 Terms and definitions</b> .....	<b>5</b>
<b>4 Principle</b> .....	<b>5</b>
<b>4.1 Method A: Measurement on a magnetic substrate - magnetic induction</b> .....	<b>5</b>
<b>4.2 Method B: Measurement on a non-magnetic substrate - eddy current</b> .....	<b>6</b>
<b>4.3 Method C: Measurement on all substrates - micrometer method</b> .....	<b>6</b>
<b>4.4 Method D: Measurement on all substrates - optical method</b> .....	<b>6</b>
<b>5 Apparatus and materials</b> .....	<b>6</b>
<b>6 Sampling</b> .....	<b>6</b>
<b>7 Test panels</b> .....	<b>6</b>
<b>8 Procedure</b> .....	<b>6</b>
<b>8.1 Calibration</b> .....	<b>6</b>
<b>8.1.1 General</b> .....	<b>6</b>
<b>8.1.2 Calibration standards</b> .....	<b>7</b>
<b>8.2 Scale rating</b> .....	<b>7</b>
<b>8.3 Measurement</b> .....	<b>7</b>
<b>8.3.1 Ambient conditions</b> .....	<b>7</b>
<b>8.3.2 Number of measurements</b> .....	<b>7</b>
<b>8.3.3 Method A: Magnetic induction</b> .....	<b>7</b>
<b>8.3.4 Method B: Eddy current</b> .....	<b>8</b>
<b>8.3.5 Method C: Micrometer method</b> .....	<b>8</b>
<b>8.3.6 Method D: Optical method</b> .....	<b>8</b>
<b>9 Expression of results</b> .....	<b>9</b>
<b>10 Accuracy</b> .....	<b>9</b>
<b>11 Test report</b> .....	<b>9</b>
<b>Bibliography</b> .....	<b>10</b>

## European foreword

This document (EN 13523-1:2017) has been prepared 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 August 2017, and conflicting national standards shall be withdrawn at the latest by August 2017.

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

This document supersedes EN 13523-1:2009.

The main changes are:

- a) a reference to EN 13523-0 concerning conditioning of the test panels was added;
- b) the principle clause for methods A and B have been stated more precisely;
- c) the number of measurements has been added to methods C and D;
- d) the text has been editorially revised and the normative references have been updated.

The EN 13523 series, *Coil coated metals — Test methods*, consists of the following parts:

- *Part 0: General introduction*
- *Part 1: Film thickness*
- *Part 2: Gloss*
- *Part 3: Colour difference — Instrumental comparison*
- *Part 4: Pencil hardness*
- *Part 5: Resistance to rapid deformation (impact test)*
- *Part 6: Adhesion after indentation (cupping test)*
- *Part 7: Resistance to cracking on bending (T-bend test)*
- *Part 8: Resistance to salt spray (fog)*
- *Part 9: Resistance to water immersion*
- *Part 10: Resistance to fluorescent UV radiation and water condensation*
- *Part 11: Resistance to solvents (rubbing test)*
- *Part 12: Resistance to scratching*
- *Part 13: Resistance to accelerated ageing by the use of heat*

**EN 13523-1:2017 (E)**

- *Part 14: Chalking (Helmen method)*
- *Part 15: Metamerism*
- *Part 16: Resistance to abrasion*
- *Part 17: Adhesion of strippable films*
- *Part 18: Resistance to staining*
- *Part 19: Panel design and method of atmospheric exposure testing*
- *Part 20: Foam adhesion*
- *Part 21: Evaluation of outdoor exposed panels*
- *Part 22: Colour difference — Visual comparison*
- *Part 23: Resistance to humid atmospheres containing sulfur dioxide*
- *Part 24: Resistance to blocking and pressure marking*
- *Part 25: Resistance to humidity*
- *Part 26: Resistance to condensation of water*
- *Part 27: Resistance to humid poultice (Cataplasm test)*
- *Part 29: Resistance to environmental soiling (Dirt pick-up and striping)*

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

## 1 Scope

This part of the EN 13523 series specifies the procedures for determining the dry-film thickness of an organic coating on a metallic substrate (coil coating).

Four appropriate methods are given in this European Standard:

- a) magnetic induction;
- b) eddy current;
- c) micrometer;
- d) optical.

The methods are applicable only to products with smooth and flat substrates but the coating itself may be textured. In that case, for methods a) and b) the average of a series of readings will represent an average of the thickness of the organic coating, while method c) will give the maximum thickness and method d) can provide the minimum, maximum and average thickness.

Non-destructive continuous-web methods on measurement of dry-film thickness (see EN ISO 2808) are not dealt with.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 13523-0:2014, *Coil coated metals - Test methods - Part 0: General introduction*

EN 23270, *Paints and varnishes and their raw materials - Temperatures and humidities for conditioning and testing (ISO 3270)*

EN ISO 3611, *Geometrical product specifications (GPS) - Dimensional measuring equipment: Micrometers for external measurements - Design and metrological characteristics (ISO 3611)*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**