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

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ICS 17.040.20, 25.220.60

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Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 13523-1:2009) 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of an identical text or by endorsement, at the latest by June 2010, and conflicting national standards shall be withdrawn at the latest by June 2010.

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.

This document supersedes EN 13523-1:2001.

The main technical change is: the Scope of the method has been changed to include micrometer and optical determination methods.

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, 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.

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1 Scope

This European Standard 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 referenced documents are indispensable for the application 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.

EN 13523-0:2001, *Coil coated metals — Test methods — Part 0: General introduction and list of test methods*

EN 23270, *Paints and varnishes and their raw materials — Temperatures and humidities for conditioning and testing (ISO 3270:1984)*

ISO 3611, *Micrometer callipers for external measurement*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13523-0:2001 and the following apply.

3.1
film thickness
distance between the surface of the film and the surface of the substrate

[EN ISO 2808:2007]

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