

Coil coated metals - Test methods - Part 2: Gloss

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

Coil coated metals - Test methods - Part 2: Gloss

Tôles prélaquées - Méthodes d'essai - Partie 2: Brillant

Bandbeschichtete Metalle - Prüfverfahren - Teil 2: Glanz

This European Standard was approved by CEN on 7 May 2014.

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Foreword

This document (EN 13523-2:2014) 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of an identical text or by endorsement, at the latest by December 2014, and conflicting national standards shall be withdrawn at the latest by December 2014.

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 13523-2:2001.

The main technical changes are:

- a) the text was aligned with the revision of EN ISO 2813, i.e. the result of the measurement is expressed in gloss units (GU);
- b) the definition for specular gloss was deleted;
- c) for calibration of the glossmeter, a reference to EN ISO 2813 was added;
- d) a remark on preconditioning was added;
- e) the procedure was amended so that measurements can be taken in the rolling direction or perpendicular to the rolling direction, which has to be stated in the test report;
- f) the selection of the measuring geometry was aligned with the revision of EN ISO 2813.
- g) for precision data, a reference to EN ISO 2813 was added.

EN 13523, *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*
- *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)*

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Introduction

In EN 1396 and EN 10169, tolerances against nominal gloss are given for different gloss ranges of the coil coated product.

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1 Scope

This part of EN 13523 specifies the procedure for determining the gloss of an organic coating on a metallic substrate. Gloss is a characteristic of fundamental importance to the appearance of the coil coated product.

The apparatus requires a flat specimen of size greater than the aperture, thus, uneven surfaces cannot be measured.

This method is applicable to all pigmented and unpigmented coatings including metallic/pearlescent coatings. However, for textured coatings it is only indicative.

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 2813, *Paints and varnishes — Determination of specular gloss of non-metallic paint films at 20°, 60° and 85° (ISO 2813)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13523-0:2014 and the following apply.

3.1

gloss

optical property of a surface, characterized by its ability to reflect light specularly

[SOURCE: FprEN ISO 4618:2014, 2.132, modified, Note 1 to entry deleted]

4 Principle

The gloss of the organic coating is determined by measuring the specular reflectance. The angle of incident light is usually 60°, but angles of 20° or 85° may be used for more accurate measurement of high or low gloss values.

5 Apparatus

Ordinary laboratory apparatus, together with the following:

5.1 60° glossmeter or multi-angle glossmeter, in accordance with EN ISO 2813.

5.2 Calibration standards, as recommended by the manufacturer of the glossmeter, in accordance with EN ISO 2813.

6 Sampling

See EN 13523-0.