Coil coated metals - Test methods - Part 2: Gloss

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 13523-2:2021 sisaldab Euroopa standardi EN 13523-2:2021 ingliskeelset teksti.	This Estonian standard EVS-EN 13523-2:2021 consists of the English text of the European standard EN 13523-2:2021.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 13.10.2021.	Date of Availability of the European standard is 13.10.2021.
Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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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 16 August 2021.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Contents

Page

European foreword

This document (EN 13523-2:2021) 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of an identical text or by endorsement, at the latest by April 2022, and conflicting national standards shall be withdrawn at the latest by April 2022.

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 13523-2:2014.

The main changes are:

a) the definition has been aligned with those in EN ISO 4618;

b) the list of the existing parts of EN 13523 has been updated;

c) 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 and metamerism — 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 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)*

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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

Introduction

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

1 Scope

This document 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 are referred to in the text in such a way that some or all of their content constitutes requirements 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 13523-0:2021, *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 gloss value at 20°, 60° and 85° (ISO 2813)*

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:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
gloss
optical property of a surface, characterized by its ability to reflect light specularly

Note 1 to entry: Examples of degrees of gloss are high gloss, gloss, silkgloss, semigloss, satin, matt and dead matt.

[SOURCE: EN ISO 4618:2014, 2.132]

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.