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Coil coated metals - Test methods - Part 18: Resistance to staining

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NATIONAL FOREWORD

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See Eesti standard EVS-EN 13523-18:2020 sisaldab Euroopa standardi EN 13523-18:2020 ingliskeelset teksti.	This Estonian standard EVS-EN 13523-18:2020 consists of the English text of the European standard EN 13523-18:2020.
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.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 03.06.2020.	Date of Availability of the European standard is 03.06.2020.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

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ICS 25.220.60

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 13523-18

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English Version

Coil coated metals - Test methods - Part 18: Resistance to staining

Tôles prélaquées - Méthodes d'essai - Partie 18 : Résistance aux taches

Bandbeschichtete Metalle - Prüfverfahren - Teil 18: Beständigkeit gegen Fleckenbildung

This European Standard was approved by CEN on 3 May 2020.

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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.

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European foreword

This document (EN 13523-18:2020) 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of an identical text or by endorsement, at the latest by December 2020, and conflicting national standards shall be withdrawn at the latest by December 2020.

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 13523-18:2002.

The main changes are:

a) the required supplementary information (former Clause 10) has been integrated in the test report;

b) 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*

— *Part 14: Chalking (Helmen method)*

— *Part 15: Metamerism*

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— *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, 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.

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1 Scope

This document specifies test procedures for assessing the effect of chemicals on the characteristics of an organic coating on a metallic substrate. It covers testing by using defined substances and to assess the change in characteristics such as discoloration, change in gloss, blistering, softening, swelling and loss of adhesion. Assessment of other phenomena can be agreed between the interested parties.

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, *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)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13523-0 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 https://www.iso.org/obp

4 Principle

A coated test panel or a flat surface on a fabricated article is exposed to an individual substance for an agreed period of time. Three different test procedures can be used:

a) **Spot test (covered):** The substance is placed on the test panel and immediately covered with a watch glass.

b) **Spot test (open):** The substance is placed on the test panel and left open to the atmosphere.

c) **Immersion test:** The test panel is partly immersed in the substance.

5 Apparatus

Ordinary laboratory apparatus and glassware, together with the following:

5.1 Watch glass, of diameter 50 mm.

5.2 Pipette, of capacity 5 ml, graduated in 0,1 ml.

5.3 Glass beaker, of capacity 600 ml, with a suitable cover.

5.4 Hotplate, with thermostatic control.

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