# Coil coated metals - Test methods - Part 26: Resistance to condensation of water



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## NATIONAL FOREWORD

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|---|---|
| See Eesti standard EVS-EN 13523-26:2014 sisaldab Euroopa standardi EN 13523-26:2014 inglisekeelset teksti. | This Estonian standard EVS-EN 13523-26:2014 consists of the English text of the European standard EN 13523-26:2014. |
| 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 18.06.2014. | Date of Availability of the European standard is 18.06.2014. |
| Standard on kättesaadav Eesti Standardikeskusest. | The standard is available from the Estonian Centre for Standardisation. |



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

ICS 25.220.60

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

# EN 13523-26

June 2014

ICS 25.220.60

Supersedes EN 13523-26:2006

English Version

# Coil coated metals - Test methods - Part 26: Resistance to condensation of water

Tôles prélaquées - Méthodes d'essai - Partie 26: Résistance à la condensation de l'eau

Bandbeschichtete Metalle - Prüfverfahren - Teil 26: Beständigkeit gegen Kondenswasser

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



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Ref. No. EN 13523-26:2014 E

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# Foreword

This document (EN 13523-26:2014) 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of an identical text or by endorsement, at the latest by December 2014, and conflicting national standards shall be withdrawn at the latest by December 2014.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 13523-26:2006.

The main technical changes are:

a) the description of the water cabinet was amended and a figure showing an example of a water cabinet was introduced;

b) exposure times for the test panels are amended.

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)*

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, 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

# 1 Scope

This Part of EN 13523 specifies a procedure for evaluating the resistance to continuous condensation of an organic coating on a metallic substrate, by means of exposure in a humidity cabinet under controlled conditions.

# 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 13523-2, *Coil coated metals — Test methods — Part 2: Gloss*

EN 13523-3, *Coil coated metals — Test methods — Part 3: Colour difference — Instrumental comparison*

EN ISO 4628-2, *Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 2: Assessment of degree of blistering (ISO 4628-2)*

# 3 Terms and definitions

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

# 4 Principle

A test panel is exposed to continuous water condensation for a pre-determined time and at a specified temperature. The test panel is evaluated for any changes such as blistering or corrosion, e.g. red rust, white rust. Optionally, changes in colour and/or gloss are evaluated as well.

# 5 Apparatus

Ordinary laboratory apparatus and glassware, together with the following:

## 5.1 Cabinet

The apparatus consists essentially of an electrically heated water bath with temperature control and a cover designed to support the test panels which are placed at an angle of (60 ± 5)° to the horizontal, The tested face of the samples is facing down, the other face being exposed to the environment. If necessary, suitable inert blanking samples may be used to ensure the tightness of the chamber. The insulation of the cabinet shall be enough to guarantee constant temperature of the air space below the panels.

An example for cabinet design is given in Figure 1.