# Coil coated metals - Test methods - Part 25: Resistance to humidity

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### **EESTI STANDARDI EESSÕNA**

### **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 13523-
25:2006 sisaldab Euroopa standardi EN
13523-25:2006 ingliskeelset teksti.

Käesolev dokument on jõustatud 31.07.2006 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 13523-25:2006 consists of the English text of the European standard EN 13523-25:2006.

This document is endorsed on 31.07.2006 with the notification being published in the official publication of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

### Käsitlusala:

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

### Scope:

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

**ICS** 25.220.60

Võtmesõnad:

### EUROPEAN STANDARD NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

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### **English Version**

## Coil coated metals - Test methods - Part 25: Resistance to humidity

Tôles prélaquées - Méthodes d'essai - Partie 25: Résistance à l'humidité Bandbeschichtete Metalle - Prüfverfahren - Teil 25: Beständigkeit gegen Feuchte

This European Standard was approved by CEN on 27 April 2006.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, 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 United Kingdom.



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

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### **Foreword**

This document (EN 13523-25:2006) 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 November 2006, and conflicting national standards shall be withdrawn at the latest by November 2006.

This European Standard EN 13523, Coil coated metals — Test methods consists of the following parts:

- Part 0: General introduction and list of test methods;
- Part 1: Coating thickness;
- Part 2: Specular 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 light 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: Colour stability in 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.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, any, , Portug. Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

### 1 Scope

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

### 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 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 4628-2:2003)

EN ISO 4628-3, Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 3: Assessment of degree of rusting (ISO 4628-3:2003)

EN ISO 4628-4, Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 4: Assessment of degree of cracking (ISO 4628-4:2003)

EN ISO 4628-5, Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 5: Assessment of degree of flaking (ISO 4628-5:2003)

EN ISO 4628-8, Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 8: Assessment of degree of delamination and corrosion around a scribe (ISO/4628-8:2005)

EN ISO 4628-10, Paints and varnishes — Evaluation of degradation of coatings — Designation of quantity and size of defects, and of intensity of uniform changes in appearance — Part 10: Assessment of degree of filiform corrosion (ISO 4628-10:2003)

prEN ISO 17872, Paints and varnishes — Guidelines for the introduction of scribe marks through coatings on metallic panels for corrosion testing (ISO/DIS 17872:2005)

### 3 Terms and definitions

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

### 4 Principle

The method consists of exposing a test panel to humidity, for a pre-determined time, at a specified temperature. The test panel is evaluated for any uniform or local changes such as blistering or corrosion (e.g. red rust, white rust).

Both continuous and cyclic humidity tests can be carried out.