

Coil coated metals - Test methods - Part 4: Pencil hardness

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13523-4:2001 sisaldab Euroopa standardi EN 13523-4:2001 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.06.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13523-4:2001 consists of the English text of the European standard EN 13523-4:2001.</p> <p>This document is endorsed on 18.06.2001 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This part of EN 13523 describes the procedure for determining the relative hardness of an organic coating on a metallic substrate, by means of pencils of known hardness.</p>	<p>Scope: This part of EN 13523 describes the procedure for determining the relative hardness of an organic coating on a metallic substrate, by means of pencils of known hardness.</p>
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Võtmesõnad: coating materials, coatings, definitions, general section, hardness, metal coating, metals, paints, pencils, specification (approval), specifications, testing

English version

Coil coated metals – Test methods

Part 4: Pencil hardness

Tôles prélaquées – Méthodes d'essai –
Partie 4: Dureté crayon

Bandbeschichtete Metalle – Prüfver-
fahren – Teil 4: Bleistifthärte

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Management Centre: rue de Stassart 36, B-1050 Brussels

Foreword

This European Standard 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of an identical text or by endorsement, at the latest by July 2001, and conflicting national standards shall be withdrawn at the latest by July 2001.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This Part of EN 13523 describes the procedure for determining the relative hardness of an organic coating on a metallic substrate, by means of pencils of known hardness.

Smooth surfaces will give more accurate results but the method is also applicable for textured surfaces. The more pronounced the texture, the greater the unreliability of results.

2 Normative references

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 13523-0:2001

Coil coated metals – Test methods – Part 0: General introduction and list of test methods

EN 23270:1991

Paint and varnishes and their raw materials – Temperatures and humidities for conditioning and testing (ISO 3270:1984)

ISO 15184:1998

Paints and varnishes – Determination of film hardness by pencil test

3 Terms and definitions

For the purposes of this part of EN 13523, the terms and definitions given in EN 13523-0:2001 apply, together with the following.

3.1 pencil hardness

resistance of the surface of a paint film to marking, or other defects as a result of the action of a pencil with a specified dimension, shape and hardness of the lead, which is pushed across the surface.

NOTE: Marking by pencil leads covers a range of defects in the surface of the paint film. For further details see ISO 15184:1998.

4 Principle

The coating is intentionally damaged by pencils of increasing hardness. The hardest lead which does not remove the coating for a minimum of 3 mm length determines the degree of hardness.

5 Apparatus and materials

Ordinary laboratory apparatus, together with the following:

5.1 Set of Cretacolor or Faber Castell drawing pencils, or their equivalents in the following range:

6B, 5B, 4B, 3B, 2B, B, HB, F, H, 2H, 3H, 4H, 5H, 6H
(softer) (harder)

NOTE: Cretacolor and Faber Castell pencils have been found to be the most uniform and the most reproducible.