



SLOVENSKI STANDARD
SIST EN 13523-20:2005

01-april-2005

? c j] b Y ž d f Y j ` Y Y b Y j ` g j] h] \ ` ! ` D f Y g _ i g b Y ` a Y r c X Y ! ` & \$ " X Y . ` C d f] Y a ` ` j j c g h i d Y b Y

Coil coated metals - Test methods - Part 20: Foam adhesion

Bandbeschichtete Metalle - Prüfverfahren - Teil 20: Haftfestigkeit von Schaum

iTeh STANDARD PREVIEW

Tôles prélaquées - Méthodes d'essai - Partie 20: Adhérence des mousses

Ta slovenski standard je istoveten z: EN 13523-20:2004

SIST EN 13523-20:2005
<https://standards.iteh.ai/catalog/standards/sist/13c499c2-3553-4673-8f8c-1db2768206f6/sist-en-13523-20-2005>

ICS:

25.220.60 Organske prevleke Organic coatings

SIST EN 13523-20:2005 en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 13523-20:2005](https://standards.iteh.ai/catalog/standards/sist/f5c499c2-3353-4673-8f8c-1db2768206f6/sist-en-13523-20-2005)

<https://standards.iteh.ai/catalog/standards/sist/f5c499c2-3353-4673-8f8c-1db2768206f6/sist-en-13523-20-2005>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 13523-20

November 2004

ICS 25.220.60

English version

Coil coated metals - Test methods - Part 20: Foam adhesion

Tôles prélaquées - Méthodes d'essais - Partie 20:
Adhérence des mousses

Bandbeschichtete Metalle - Prüfverfahren - Teil 20:
Haftfestigkeit von Schaum

This European Standard was approved by CEN on 23 September 2004.

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

STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 13523-20:2005
<https://standards.iteh.ai/catalog/standards/sist/f5c499c2-3353-4673-8f8c-1db2768206f6/sist-en-13523-20-2005>



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

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

EN 13523-20:2004 (E)**Foreword**

This document (EN 13523-20:2004) 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 May 2005, and conflicting national standards shall be withdrawn at the latest by May 2005.

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, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 13523-20:2005](https://standards.iteh.ai/catalog/standards/sist/f5c499c2-3353-4673-8f8c-1db2768206f6/sist-en-13523-20-2005)

<https://standards.iteh.ai/catalog/standards/sist/f5c499c2-3353-4673-8f8c-1db2768206f6/sist-en-13523-20-2005>

1 Scope

This part of EN 13523 describes a laboratory method for testing foam adhesion to an organic coating on a metallic substrate under dry and wet 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.*

3 Terms and definitions

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

4 Material

4.1 Foam

Organic insulation material obtained by mixing specific components (for example polyol and isocyanate) and (industrially) applied between two sheets to obtain a sandwich panel.

5 Principle

The foam adhesion is tested by pulling off the foam from the coil coated metal sheet.

The test has only two possible results: “passed” or “failed”.

6 Apparatus

6.1 General

Ordinary laboratory apparatus and glassware, together with the following

6.2 Humidity cabinet

Capable of being maintained at 100 % relative humidity at a temperature of (40 ± 2) °C.

7 Sampling

See EN 13523-0.

EN 13523-20:2004 (E)

8 Test specimens

See EN 13523-0.

9 Procedure

9.1 Preparation

Cut the samples of coated metal sheet into workable pieces.

Mix the components of the foam together in a blender, according to the supplier's specification (for example 20 g polyol and 26 g isocyanate, during 10 s).

Pour a small quantity of the mixture over the surface to be tested. As the mixture reacts immediately, the application of the mixture shall be done within 20 s after mixing, unless otherwise specified by the supplier.

After the application, leave the samples under ambient conditions, for 30 min to 40 min or as otherwise specified, before testing as described below.

9.2 Adhesion testing

9.2.1 Dry adhesion

9.2.1.1 Pull off the polymerised foam (by hand) from one sample.

9.2.1.2 If at the coating/foam interface none of the original coating surface is revealed, a second sample shall be held at room temperature for 24 h. Pull off the polymerised foam (by hand) from this sample. Lightly scrape the remaining foam layer with a knife. If this scraping cannot reveal the original coating, dry adhesion is reported as "passed".

9.2.2 Wet adhesion

9.2.2.1 Put a sample prepared as described in 9.1 in boiling water for 1 h. After removal of excess water, pull off the foam (by hand).

9.2.2.2 If at the coating/foam interface none of the original coating surface is revealed after the boiling test, put a second sample as described in 9.1 in the humidity cabinet (100 % relative humidity at 40°C) for 24 h. After removal of excess water, pull off the foam (by hand). If at the coating/foam interface none of the original coating surface is revealed, wet adhesion is reported as "passed".

10 Expression of results

The results shall be expressed either by "passed" if both dry and wet adhesion tests passed or by "failed" indicating at which step the adhesion test failed.

11 Precision

No precision data are currently available.

12 Test report

The test report shall contain at least the following information:

- a) all details necessary to identify the product tested;
- b) a reference to this part of EN 13523 (EN 13523-20);
- c) specification of the foam components;
- d) result of the test, as indicated in clause 9;
- e) any deviation from the test method specified;
- f) date of the test.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 13523-20:2005](https://standards.iteh.ai/catalog/standards/sist/f5c499c2-3353-4673-8f8c-1db2768206f6/sist-en-13523-20-2005)

<https://standards.iteh.ai/catalog/standards/sist/f5c499c2-3353-4673-8f8c-1db2768206f6/sist-en-13523-20-2005>

EN 13523-20:2004 (E)

Bibliography

EN 1396, *Aluminium and aluminium alloys — Coil coated sheet and strip for general applications — Specifications.*

EN 10169-1, *Continuously organic coated (coil coated) steel flat products — Part 1: General information (definitions, materials, tolerances, test methods).*

prEN 10169-2, *Continuously organic coated (coil coated) steel flat products — Part 2: Products for building exterior applications.*

EN 10169-3, *Continuously organic coated (coil coated) steel flat products — Part 3: Products for building interior applications.*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 13523-20:2005](https://standards.iteh.ai/catalog/standards/sist/f5c499c2-3353-4673-8f8c-1db2768206f6/sist-en-13523-20-2005)

<https://standards.iteh.ai/catalog/standards/sist/f5c499c2-3353-4673-8f8c-1db2768206f6/sist-en-13523-20-2005>