



**SLOVENSKI STANDARD**  
**SIST EN ISO 19712-2:2014**

**01-februar-2014**

---

**Polimerni materiali - Dekorativni trdni površinski materiali - 2. del: Ugotavljanje lastnosti - Plošče (ISO 19712-2:2007)**

Plastics - Decorative solid surfacing materials - Part 2: Determination of properties - Sheet goods (ISO 19712-2:2007)

Kunststoffe - Dekorative Mineralwerkstoffe - Teil 2: Prüfverfahren - Plattenware (ISO 19712-2:2007)

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

Plastiques - Matériaux décoratifs massifs de revêtement de surface - Partie 2: Détermination des propriétés - Produits en feuilles (ISO 19712-2:2007)

[SIST EN ISO 19712-2:2014](https://standards.iteh.ai/catalog/standards/sist/a73c84b8-7a46-49c7-8e29-f794037b3111/sist-en-iso-19712-2-2014)

<https://standards.iteh.ai/catalog/standards/sist/a73c84b8-7a46-49c7-8e29-f794037b3111/sist-en-iso-19712-2-2014>

**Ta slovenski standard je istoveten z: EN ISO 19712-2:2013**

---

**ICS:**

83.140.20      Laminatne plošče      Laminated sheets

**SIST EN ISO 19712-2:2014**      **en,fr,de**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 19712-2:2014](#)

<https://standards.iteh.ai/catalog/standards/sist/a73c84b8-7a46-49c7-8e29-fc794027b311/sist-en-iso-19712-2-2014>

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 19712-2**

January 2013

ICS 83.140.20

English Version

**Plastics - Decorative solid surfacing materials - Part 2:  
Determination of properties - Sheet goods (ISO 19712-2:2007)**

Plastiques - Matériaux décoratifs massifs de revêtement de surface - Partie 2: Détermination des propriétés - Produits en feuilles (ISO 19712-2:2007)

Kunststoffe - Dekorative Mineralwerkstoffe - Teil 2: Prüfverfahren - Plattenware (ISO 19712-2:2007)

This European Standard was approved by CEN on 22 December 2012.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.

<https://standards.iteh.ai/catalog/standards/sist/a73c84b8-7a46-49c7-8e29-fc794027b311/sist-en-iso-19712-2-2014>



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

**Management Centre: Avenue Marnix 17, B-1000 Brussels**

**Contents**

Page

Foreword.....3

**iTeh STANDARD PREVIEW  
(standards.iteh.ai)**

[SIST EN ISO 19712-2:2014](https://standards.iteh.ai/catalog/standards/sist/a73c84b8-7a46-49c7-8e29-fc794027b311/sist-en-iso-19712-2-2014)  
<https://standards.iteh.ai/catalog/standards/sist/a73c84b8-7a46-49c7-8e29-fc794027b311/sist-en-iso-19712-2-2014>

## Foreword

The text of ISO 19712-2:2007 has been prepared by Technical Committee ISO/TC 61 "Plastics" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 19712-2:2013 by Technical Committee CEN/TC 249 "Plastics" the secretariat of which is held by NBN.

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 2013, and conflicting national standards shall be withdrawn at the latest by July 2013.

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.

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, 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.

## iTeh STANDARD PREVIEW Endorsement notice (standards.iteh.ai)

The text of ISO 19712-2:2007 has been approved by CEN as a EN ISO 19712-2:2013 without any modification.

[SIST EN ISO 19712-2:2014  
https://standards.iteh.ai/catalog/standards/sist/a73c84b8-7a46-49c7-8e29-  
fc794027b311/sist-en-iso-19712-2-2014](https://standards.iteh.ai/catalog/standards/sist/a73c84b8-7a46-49c7-8e29-fc794027b311/sist-en-iso-19712-2-2014)

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 19712-2:2014](#)

<https://standards.iteh.ai/catalog/standards/sist/a73c84b8-7a46-49c7-8e29-fc794027b311/sist-en-iso-19712-2-2014>

INTERNATIONAL  
STANDARD

ISO  
19712-2

First edition  
2007-12-15

---

---

**Plastics — Decorative solid surfacing  
materials —**

Part 2:  
**Determination of properties — Sheet  
goods**

**iTeh STANDARD PREVIEW**  
*Plastiques — Matériaux décoratifs massifs de revêtement de surface —  
Partie 2: Détermination des propriétés — Produits en feuilles*  
(standards.iteh.ai)

SIST EN ISO 19712-2:2014

[https://standards.iteh.ai/catalog/standards/sist/a73c84b8-7a46-49c7-8e29-  
fc794027b311/sist-en-iso-19712-2-2014](https://standards.iteh.ai/catalog/standards/sist/a73c84b8-7a46-49c7-8e29-fc794027b311/sist-en-iso-19712-2-2014)



Reference number  
ISO 19712-2:2007(E)

© ISO 2007

**ISO 19712-2:2007(E)****PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 19712-2:2014](https://standards.iteh.ai/catalog/standards/sist/a73c84b8-7a46-49c7-8e29-fc794027b311/sist-en-iso-19712-2-2014)

<https://standards.iteh.ai/catalog/standards/sist/a73c84b8-7a46-49c7-8e29-fc794027b311/sist-en-iso-19712-2-2014>

**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2007

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland



## Contents

Page

Foreword.....	iv
Introduction .....	v
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions.....	2
4 Cleaning the test specimen surface .....	2
5 Surface defects .....	3
6 Consistency of colour .....	3
7 Load test.....	5
8 Resistance to impact by large-diameter ball .....	7
9 Lightfastness.....	10
10 Stain/chemical-resistance test .....	15
11 Resistance to cigarette burns .....	23
12 Resistance to dry heat.....	31
13 Resistance to wet heat .....	37
14 Hot/cold-cycle water-resistance test .....	40
15 Hardness.....	41
16 Ability to be renewed.....	41
Bibliography .....	42

## ISO 19712-2:2007(E)

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 19712-2 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 11, *Products*.

ISO 19712 consists of the following parts, under the general title *Plastics — Decorative solid surfacing materials*:

— *Part 1: Classification and specifications*

— *Part 2: Determination of properties — Sheet goods*

— *Part 3: Determination of properties — Solid surface shapes*

ITih STANDARD PREVIEW  
(standards.iteh.ai)

SIST EN ISO 19712-2:2014  
<https://standards.iteh.ai/catalog/standards/sist/a73c84b8-7a46-49c7-8e29-fc794027b311/sist-en-iso-19712-2-2014>

## Introduction

This part of ISO 19172 is intended for use by manufacturers, installers and specifiers of solid surfacing materials.

The test methods and minimum performance values presented have been related as closely as possible to end-use applications. The fabrication techniques employed may, however, have a bearing on product performance and service.

The performance requirements include impact resistance, structure, renewability, colourfastness, cleanability, stain resistance, water resistance, chemical resistance, bacterial and fungal resistance, and other significant properties.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 19712-2:2014](https://standards.iteh.ai/catalog/standards/sist/a73c84b8-7a46-49c7-8e29-fc794027b311/sist-en-iso-19712-2-2014)

<https://standards.iteh.ai/catalog/standards/sist/a73c84b8-7a46-49c7-8e29-fc794027b311/sist-en-iso-19712-2-2014>

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 19712-2:2014](#)

<https://standards.iteh.ai/catalog/standards/sist/a73c84b8-7a46-49c7-8e29-fc794027b311/sist-en-iso-19712-2-2014>

# Plastics — Decorative solid surfacing materials —

## Part 2: Determination of properties — Sheet goods

**SAFETY STATEMENT** — Persons using this document should be familiar with normal laboratory practice, if applicable. This document does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any regulatory conditions.

### 1 Scope

This part of ISO 19712 specifies the methods of test for determination of the properties of solid surfacing materials, as defined in Clause 3, in the form of sheets. These methods are primarily intended for testing the materials specified in ISO 19712-1.

The tests may be carried out on finished sheets, but are generally carried out on test specimens of a size sufficient to meet the requirements of the test, and of the same material and finish as the finished sheet.

### 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.

ISO 105-A02, *Textiles — Tests for colour fastness — Part A02: Grey scale for assessing change in colour*

ISO 105-B02, *Textiles — Tests for colour fastness — Part B02: Colour fastness to artificial light: Xenon arc fading lamp test*

ISO 209:2007, *Aluminium and aluminium alloys — Chemical composition*

ISO 1770, *Solid-stem general purpose thermometers*

ISO 2039-1, *Plastics — Determination of hardness — Part 1: Ball indentation method*

ISO 2039-2, *Plastics — Determination of hardness — Part 2: Rockwell hardness*

ISO 3668, *Paints and varnishes — Visual comparison of the colour of paints*

ISO 4211:1979, *Furniture — Assessment of surface resistance to cold liquids*

ISO 4892:1981, *Plastics — Methods of exposure to laboratory light sources<sup>1)</sup>*

ISO 4892-1, *Plastics — Methods of exposure to laboratory light sources — Part 1: General guidance*

1) Withdrawn, but still used in certain Asian countries.

**ISO 19712-2:2007(E)**

ISO 4892-2:2006, *Plastics — Methods of exposure to laboratory light sources — Part 2: Xenon-arc lamps*

ISO 9370, *Plastics — Instrumental determination of radiant exposure in weathering tests — General guidance and basic test method*

ISO 19712-1, *Plastics — Decorative solid surfacing materials — Part 1: Classification and specifications*

CIE Publication No. 85:1989, *Solar spectral irradiance*

ASTM D 2244, *Standard Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates*

ASTM D 2583, *Standard Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor*

**3 Terms and definitions**

For the purposes of this document, the following terms and definitions apply.

**3.1**  
**solid surfacing material**  
**SSM**  
material, composed of polymeric materials together with pigments and fillers, intended to be cast into sheets or shaped products

NOTE 1 The material is of the same composition throughout the whole thickness of the sheet or product.

NOTE 2 Sheets and products made from SSMs are repairable and renewable to the original finish.

NOTE 3 SSMs can also be fabricated into continuous sheets with inconspicuous seams.

**4 Cleaning the test specimen surface****4.1 General**

The surface to be tested shall be prepared prior to testing using the procedure specified in 4.3.

**4.2 Materials**

**4.2.1 Cellulose sponge.**

**4.2.2 Non-abrasive cleanser,** containing a bleaching agent.

**4.2.3 Water.**

**4.2.4 Clean, absorbent, lint-free material.**

**4.3 Procedure**

Clean the surface using a damp sponge and non-abrasive cleanser containing a bleaching agent, scrubbing the surface with light hand pressure for up to 1,0 min/m<sup>2</sup>. Rinse the prepared surface with water and dry with clean, absorbent, lint-free material.

## 5 Surface defects

### 5.1 Procedure

The entire finished surface of a suitable-size sheet shall be rubbed with a sponge and a 50 % solution of tap water and water-soluble black or blue-black ink after the surface has been washed and dried as described in 4.3. When inspecting coloured sheets, contrasting-coloured ink shall be used. The ink shall be wiped from the surface with a damp cloth and the surface dried before inspection.

### 5.2 Method of inspection of surface

After being inked in accordance with 5.1, the surface of the sheet shall be inspected with the unaided eye for defects and blemishes from a distance of between 305 mm and 610 mm, using a light source giving an illumination intensity of  $(1\,615 \pm 540)$  lx near the surface to be inspected.

### 5.3 Performance requirements

The finished surfaces of sheets shall be free from cracks, chipped areas, pinholes and blisters.

Spots, dirt and similar surface blemishes are admissible provided the total area covered by such blemishes is not more than  $1,0\text{ mm}^2/\text{m}^2$  of sheet surface. The blemishes may be concentrated in one place or scattered over the sheet.

### 5.4 Test report

The test report shall include the following information:

- a) a reference to this part of ISO 19712;
- b) the name and type of product;
- c) whether the surface was free from cracks, chipped areas, etc.;
- d) whether the area covered by spots, dirt, etc., was more than  $1,0\text{ mm}^2/\text{m}^2$  of sheet surface;
- e) any deviation from the method specified;
- f) the date of the test.

## 6 Consistency of colour

### 6.1 Test apparatus and materials

**6.1.1 Tabletop**, approximately 760 mm above the floor.

**6.1.2 Overhead white fluorescent lights**, with the bulbs positioned parallel to the line of sight and providing an illumination intensity of 800 lx to 1 100 lx at the tabletop.

**6.1.3 Manufacturer's recommended seam adhesive.**

**6.1.4 Manufacturer's recommended abrasives and random orbital sander.**

### 6.2 Test specimens

Two specimens shall be prepared, one from the beginning of the lot and the other from the end of the lot.