
**Plastics — Decorative solid surfacing
materials —**

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

*Plastiques — Matériaux décoratifs massifs de revêtement de surface —
Partie 3: Détermination des propriétés — Produits mis en forme*



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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 19712-3 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*

Introduction

This part of ISO 19712 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.

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Plastics — Decorative solid surfacing materials —

Part 3:

Determination of properties — Solid surface shapes

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 shaped products. These methods are primarily intended for testing the materials specified in ISO 19712-1.

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

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*¹⁾

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

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

1) Withdrawn, but still used in certain Asian countries.

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

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/m². 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 the shaped product under test 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.