



SLOVENSKI STANDARD
oSIST prEN ISO 1514:2023
01-november-2023

Barve in laki - Standardne ploščice za preskušanje (ISO/DIS 1514:2023)

Paints and varnishes - Standard panels for testing (ISO/DIS 1514:2023)

Beschichtungsstoffe - Norm-Probenplatten (ISO/DIS 1514:2023)

Peintures et vernis - Panneaux normalisés pour essai (ISO/DIS 1514:2023)

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Paints and varnishes — Standard panels for testing

Peintures et vernis — Panneaux normalisés pour essai

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

This sixth edition cancels and replaces the fifth edition (ISO 1514:2016), which has been technically revised.

The main changes are as follows:

- [Clause 3](#) on terms and definitions has been added;
- the preparation of plastics substrate including glass-fibre reinforced plastic composite panels (GRP) and carbon-fibre reinforced plastic composite panels (CFRP) has been updated;
- concrete test panels have been added;
- the text has been revised editorially and the normative references have been updated.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

For many of the test methods most widely used for paints and varnishes, the type of panel used and the particular way in which it is prepared for use can affect the test results to a significant degree. Consequently, it is important to standardize as carefully as possible both the panels and the procedures used to prepare the panels prior to painting.

It is not possible to include in an International Standard all the types of panels and preparation needed for paint testing

This document describes preparation procedures that are known to be reproducible and gives additional guidance in instances where there might still be doubt due to lack of international uniformity of the procedure.

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Paints and varnishes — Standard panels for testing

1 Scope

This document specifies several types of standard panels and describes procedures for their preparation prior to painting. These standard panels are for use in general methods of test for paints, varnishes and related products (see [Annex B](#)).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1268 (all parts), *Fibre-reinforced plastics — Methods of producing test plates*

ISO 2409, *Paints and varnishes — Cross-cut test*

ISO 2808, *Paints and varnishes — Determination of film thickness*

ISO 4287, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters*

ISO 4618, *Paints and varnishes — Vocabulary*

ISO 8336, *Fibre-cement flat sheets — Product specification and test methods*

ISO 11949, *Cold-reduced tinmill products — Electrolytic tinplate*

EN 520, *Gypsum plasterboards — Definitions, requirements and test methods*

EN 622 (all parts), *Fibreboards — Specifications*

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

EN 1766, *Products and systems for the protection and repair of concrete structures — Test methods — Reference concretes for testing*

EN 10205, *Cold reduced blackplate in coil form for the production of tinplate or electrolytic chromium/chromium oxide coated steel*

EN 13523-1, *Coil coated metals — Test methods — Part 1: Film thickness*

EN 13523-22, *Coil coated metals — Test methods — Part 22: Colour difference — Visual comparison*

EN 15283-2, *Gypsum boards with fibrous reinforcement — Definitions, requirements and test methods — Part 2: Gypsum fibre boards*

EN 16245-1, *Fibre-reinforced plastic composites — Declaration of raw material characteristics — Part 1: General requirements*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4618 apply.

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ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

4 Steel panels

4.1 Properties

Steel panels intended for general testing (as opposed to panels intended for testing for particular applications and uses) shall be free from rust, scratches, staining, discoloration and other surface defects. The physical dimensions of the panel shall be as specified in the description of the test method, or as otherwise agreed.

4.2 Storage prior to preparation

Prior to preparation, panels shall be stored in a manner that protects them from corrosion.

4.3 Preparation by solvent cleaning

Wipe the panel to remove any excess oil, and then wash it thoroughly with a suitable solvent to remove all excess of oil.

Ensure that any small fibres deposited by cleaning cloths are removed in the cleaning process, and that cloths are changed at predetermined intervals to avoid redistribution of oily residues. Do not contaminate the cleaned panels. Allowing the solvent to evaporate, lightly wiping the panels with a clean linen cloth and subjecting the panels to a stream of warm dry air are suitable methods of drying. If necessary, lightly warm the panels to remove any traces of condensed moisture.

If it is not feasible to apply the paint coating immediately after cleaning, the cleaned panels shall be stored in a dry and clean atmosphere, such as a desiccator containing an active desiccant, until required for use. It is also acceptable practice to wrap the panels in suitable paper.

Contaminated surfaces may be cleaned using a solvent which evaporates rapidly and residue-free which does not alter the material chemically.

4.4 Preparation by aqueous cleaning (spray or immersion process)

Clean the panels with a commercially available aqueous alkaline cleaner. A spray cleaning process is recommended, but an immersion cleaning process is also acceptable. Maintain the cleaner concentration and temperature in accordance with the recommendations of the cleaner manufacturer.

Cleaning by a spraying method is performed in four steps.

- a) Clean each side of the plates at least 10 s. Set the temperature and the spray pressure as recommended by the manufacturer of the cleaning agent.
- b) Rinse each side of the plates with tap water. Ensure that the wash water is not significantly contaminated during the cleaning process. This can be achieved by flooding the reservoir for the wash water continuously or from time to time with fresh tap water.
- c) Rinse each side of the plates with deionized water, which has a conductivity of max. 20 $\mu\text{S}/\text{cm}$.
- d) Dry the plates immediately after rinsing in an oven or with a hot air stream.

Steps b) to d) shall also be applied after the cleaning in an immersion process.