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Paints and varnishes — Standard panels for testing

Peintures et vernis — Panneaux normalisés pour essai

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Foreword

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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 document 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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This document was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 139, *Paints and varnishes,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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 (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 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 most widely used test methods 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 this document all the types of panels and preparation needed for paint testing. Thus, this document describes preparation procedures that are known to be reproducible and gives additional guidance and requirements in instances where there can still be doubt, due to lack of international uniformity of the procedure.

Common substrate panels and the documents which specify their technical delivery conditions are listed in Table B.1.

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Paints and varnishes — Standard panels for testing

1 Scope

This document specifies several types of standard panels and provides guidance and requirements on the procedures for their preparation prior to painting. The standard panels described in this document are intended for use in general methods of test for paints, varnishes and related products.

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 1268-1, *Fibre-reinforced plastics — Methods of producing test plates — Part 1: General conditions*

ISO 1268-2, *Fibre-reinforced plastics — Methods of producing test plates — Part 2: Contact and spray-up moulding*

ISO 1268-3, *Fibre-reinforced plastics — Methods of producing test plates — Part 3: Wet compression moulding*

ISO 1268-4, *Fibre-reinforced plastics — Methods of producing test plates — Part 4: Moulding of prepregs*

ISO 1268-5, *Fibre-reinforced plastics — Methods of producing test plates — Part 5: Filament winding*

ISO 1268-6, *Fibre-reinforced plastics — Methods of producing test plates — Part 6: Pultrusion moulding*

ISO 1268-7, *Fibre-reinforced plastics — Methods of producing test plates — Part 7: Resin transfer moulding*

ISO 1268-8, *Fibre-reinforced plastics — Methods of producing test plates — Part 8: Compression moulding of SMC and BMC*

ISO 1268-9, *Fibre-reinforced plastics — Methods of producing test plates — Part 9: Moulding of GMT/STC*

ISO 1268-10, *Fibre-reinforced plastics — Methods of producing test plates — Part 10: Injection moulding of BMC and other long-fibre moulding compounds — General principles and moulding of multipurpose test specimens*

ISO 1268-11, *Fibre-reinforced plastics — Methods of producing test plates — Part 11: Injection moulding of BMC and other long-fibre moulding compounds — Small plates*

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

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

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*

ISO 21920-2, *Geometrical product specifications (GPS) — Surface texture: Profile — Part 2: Terms, definitions and surface texture parameters*

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

EN 622-1, *Fibreboards — Specifications — Part 1: General requirements*

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EN 622-2, *Fibreboards — Specifications — Part 2: Requirements for hardboards*

EN 622-3, *Fibreboards — Specifications — Part 3: Requirements for medium boards*

EN 622-4, *Fibreboards — Specifications — Part 4: Requirements for softboards*

EN 622-5, *Fibreboards — Specifications — Part 5: Requirements for dry process boards (MDF)*

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 tinmill products — Blackplate*

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.

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 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 redisposition of oily residues. Do not contaminate the cleaned panels. Suitable methods of drying include 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. If necessary, lightly warm the panels to remove any traces of condensed moisture.

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