BS EN ISO 1522:2022

BSI Standards Publication

Paints and varnishes — Pendulum damping test

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National foreword

This British Standard is the UK implementation of EN ISO 1522:2022. It is identical to ISO 1522:2022. It supersedes BS EN ISO 1522:2006, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee STI/10, Test methods for paints.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Beschichtungsstoffe - Pendeldämpfungsprüfung (ISO 1522:2022)

This European Standard was approved by CEN on 12 November 2022.

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European foreword

This document (EN ISO 1522:2022) has been prepared by Technical Committee ISO/TC 35 "Paints and varnishes" in collaboration with 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of an identical text or by endorsement, at the latest by May 2023, and conflicting national standards shall be withdrawn at the latest by May 2023.

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

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Endorsement notice

The text of ISO 1522:2022 has been approved by CEN as EN ISO 1522:2022 without any modification.

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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 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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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 fourth edition cancels and replaces the third edition (ISO 1522:2006), which has been technically revised.

The main changes are as follows:

— Clause 3 “Terms and definitions” has been added.

— The recommendation of using metal or glass panels has been removed from 7.1 because the test method is also usable for other substrate materials, e.g. plastics.

— The precision statement of the König Pendulum in 10.1 has been corrected reflecting the test conditions and results of the interlaboratory comparison in 2006.

— In 5.1.3 and in B.3.2 the tolerance for the time for the amplitude of swing to decrease from 12° to 4° has been changed back to ±10 s, as it was in the second edition (ISO 1522:1998).

— The calibration of the pendulum has been added with a test for deformation.

— The text has been editorially revised and the normative references have been updated.

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Introduction

This document considers in detail two test procedures for pendulum damping tests, König and Persoz. The instruments embody the same principle, i.e. that the amplitude of oscillation of a pendulum touching a surface decreases more rapidly the softer the surface, but differ in respect of dimensions, period and amplitude of oscillation.

The interaction between the pendulum and the paint film is complex, depending as it does on both elastic and viscoelastic properties, and it is not possible to establish a general relationship between results obtained by the two tests. Therefore, only one type of pendulum should be used in a given series of measurements of damping time.

The following considerations may serve as a guide when considering which pendulum may offer an advantage for a particular purpose.

a) On surfaces with a low coefficient of friction, the Persoz pendulum may skid, which would invalidate results; however, this occurs only rarely with paints and varnishes.

b) It should be noted that both instruments reflect the sensitivity of the physical properties of a paint to its environment, and the test therefore should be under controlled conditions of temperature and humidity and in the absence of draughts. The thickness of the paint film and the nature of the substrate may also affect the damping times.

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