



SLOVENSKI STANDARD
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**Lesene in parketne talne obloge in leseni stenski in stropni opaži - Ugotavljanje
odpornosti proti kemijskim snovem**

Wood and parquet flooring and wood panelling and cladding - Determination of the
resistance to chemical agents

Parkett und andere Holzfußböden und Wand- und Deckenbekleidungen aus Holz -
Bestimmung der chemischen Widerstandsfähigkeit

Planchers et parquets en bois et lambris et bardages en bois - Détermination de la
résistance aux agents chimiques

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Wood and parquet flooring and wood panelling and cladding - Determination of the resistance to chemical agents

Planchers et parquets en bois et lambris et bardages en
bois - Détermination de la résistance aux agents chimiques

Parkett und andere Holzfußböden und Wand- und
Deckenbekleidungen aus Holz - Bestimmung der
chemischen Widerstandsfähigkeit

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 175.

If this draft becomes a European Standard, 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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Foreword

This document (prEN 13442:2011) has been prepared by Technical Committee CEN/TC 175 “Round and sawn timber”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 13442:2002.

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[SIST EN 13442:2013](https://standards.iteh.ai/catalog/standards/sist/8281d1b8-3f44-42ee-aa93-52505e902ada/sist-en-13442-2013)

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prEN 13442:2011 (E)

Introduction

This standard is one of a series of standards about wood in flooring (including parquet) and wood panelling and cladding.

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1 Scope

This European Standard specifies a test method to determine the resistance of the surface of an element of wood and parquet flooring, panelling and cladding, to a predetermined list of chemical agents they may be exposed to during their service life.

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.

EN 13756:2002, *Wood flooring – Terminology*.

EN ISO 3668, *Paints and varnishes - Visual comparison of the colour of paints (ISO 3668:1998)*.

ISO 1065, *Non-ionic surface-active agents obtained from ethylene oxide and mixed non-ionic surface-active agents - Determination of cloud point*.

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 13756:2002 apply as well as the following.

3.1

test piece

part, of a size suitable for testing, taken from an element [13442:2013](https://standards.iteh.ai/catalog/standards/sist/8281d1b8-3f44-42ce-aa93-52505e902ada/sist-en-13442-2013)

3.2

test specimen

either a full element or an assembly of elements to be tested

3.3

test surface

part of the test piece, where the test area is located

NOTE For products made from small elements the test piece can be the same as the test specimen.

3.4

test area

area under the Petri dish (see 6.2.2)

3.5

reference area

any unexposed surface of the test specimen close to the test area but outside the Petri dish

4 Principle

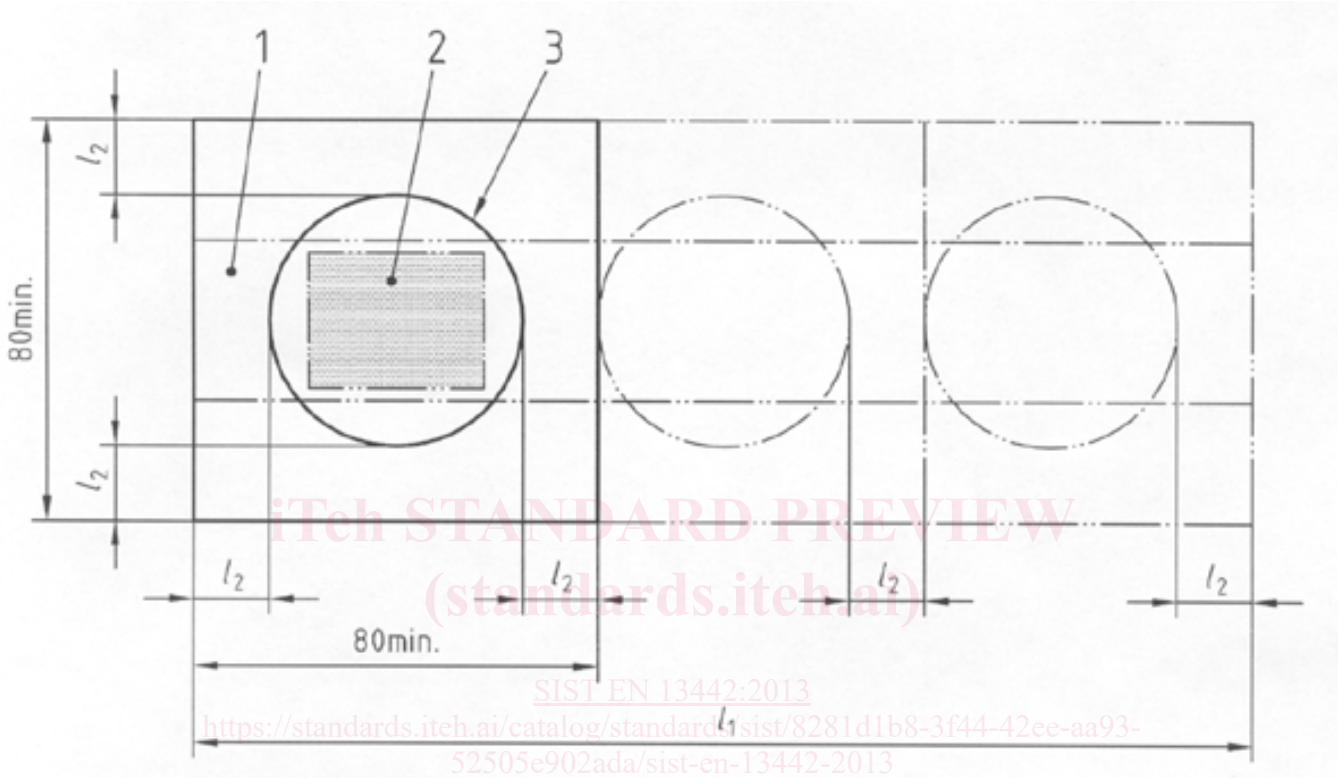
Application of a liquid test agent to a surface by means of saturated paper, covered by glass Petri dish. After a specified period of time, removal of the paper, washing and drying of the surface and examination for visible change. Assessment of the test results in terms of a numerical rating code.

5 Test pieces and test specimens

5.1 Dimensions

A test piece shall have a minimum size of 80 mm by 80 mm by the thickness of the element, see Figure 1.

Dimensions in millimetres.



Key

1 Test surface

2 Test area

3 Petri dish

$$l_1 \geq 80 + 60(n - 1)$$

minimum distance between the edge and the next test area(s) according to the number of test areas;

$$l_2 = 20 \text{ mm}$$

minimum distance between any test area and the edge or another test area;

n is the number of test areas

Figure 1 — Dimensions of a test piece

If the size of the element delivered by the manufacturer does not allow the cutting of a test piece, a test specimen shall be assembled in accordance with the manufacturer's specification, which allows to cut the necessary test pieces.

5.2 Sampling

Three test pieces or test specimens shall be tested for each agent to be applied.

6 Equipment and materials

6.1 Apparatus

6.1.1 Conditioning

If a conditioning system is available, the following climate shall be used:

- temperature $(23 \pm 2) ^\circ\text{C}$;
- relative humidity $(50 \pm 5) \%$.

6.1.2 Light sources

One of the two following types of lights is considered: diffused light source or direct light source.

6.1.2.1 Diffused light source, providing evenly diffused light giving an illumination on the test area of between 2000 lx and 5000 lx.

The light source shall have a correlated colour temperature of (6500 ± 50) K and an R_a greater than 92, by using a colour matching booth in accordance with EN ISO 3668.

6.1.2.2 Direct light source, 60 W frosted bulb so screened that light reaches the test area only from the bulb and that the bulb is not in direct view of the tester. The angle between the horizontal and a line between the bulb and the area under examination shall be 30° to 60° .

NOTE These conditions are fulfilled when the direct source is placed in a viewing cabinet as shown in Figure 2.

6.2 Test equipment

6.2.1 Pieces of cellulose filter paper to apply each of the test agents, free of dyes and of chemicals, with a grammage of 400 g/m^2 to 500 g/m^2 .

They shall have an area of $(500 \pm 50) \text{ mm}^2$. Their shape shall be chosen to suit the surface of a small element or a small single parquet strip without overlapping the edges of the element or parquet strip to be tested.

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6.2.2 Glass Petri dish

6.2.3 Pair of tweezers.

6.2.4 Absorbent paper or tissue, with good absorbent properties, free of dyes and of chemicals.

6.2.5 White, soft, absorbent cotton cloths.

6.2.6 Vessels for containing test agents during soaking of filter paper.

6.3 Chemical agents

6.3.1 Test agents

The test agents are listed in Table 1.

Table 1 — Test agents

Agent	Initial temperature of the agent $\pm 5\text{ }^{\circ}\text{C}$ $^{\circ}\text{C}$	Duration
Distilled water (see 6.3.2.1)	20	(24 \pm 1) h
Detergent, see 6.3.2.2	20	(24 \pm 1) h
Acetone, purity grade min. mass fraction of 99,5 %	20	(120 \pm 10) s
Ethanol, chemical pure, not denaturated, mass fraction of 50 % in distilled water	20	(24 \pm 1) h
Plain red wine, alcohol with a volume fraction of 10 % to 12 %	20	(24 \pm 1) h
Red wine vinegar, acetic acid solution with a volume fraction of 3 % to 5 %	20	(24 \pm 1) h
Olive oil	20	(24 \pm 1) h
Cow's milk, mass fraction of 3 % to 5 % fat	80	(24 \pm 1) h
Coffee, 40 g instant, freeze-dried coffee per l of boiling water	80	(24 \pm 1) h
Black tea, 10 g of tea leaves is infused with 1 l of boiling water. Tea is allowed to draw for 5 min.	80	(24 \pm 1) h
Ammonia solution at 10 % in water	20	(8 \pm 1) h
Blue/black ink	20	(24 \pm 1) h

The test agents shall be stored in sealed glass bottles in a dark place and shall be conditioned to the test temperature prior to use. Cow's milk, coffee, tea and wine shall be fresh.