



SLOVENSKI STANDARD
SIST ISO 6237:2020

01-september-2020

Lepila - Lepila za les - Ugotavljanje strižne trdnosti z natezno obremenitvijo

Adhesives - Wood-to-wood adhesive bonds - Determination of shear strength by tensile loading

Adhésifs - Joints collés de bois à bois - Détermination de la résistance au cisaillement par effort de traction

ITeH STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: ^{SIST ISO 6237:2020}ISO 6237:2017

<https://standards.iteh.ai/catalog/standards/sist/83c15814-7c52-4fe5-a9c4-019c18d5220e/sist-iso-6237-2020>

ICS:

83.180

Lepila

Adhesives

SIST ISO 6237:2020

en,fr,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST ISO 6237:2020

<https://standards.iteh.ai/catalog/standards/sist/83c15814-7c52-4fe5-a9c4-019c18d5220e/sist-iso-6237-2020>

INTERNATIONAL
STANDARD

ISO
6237

Third edition
2017-11

**Adhesives — Wood-to-wood adhesive
bonds — Determination of shear
strength by tensile loading**

*Adhésifs — Joints collés de bois à bois — Détermination de la
résistance au cisaillement par effort de traction*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST ISO 6237:2020](https://standards.iteh.ai/catalog/standards/sist/83c15814-7c52-4fe5-a9c4-019c18d5220e/sist-iso-6237-2020)

<https://standards.iteh.ai/catalog/standards/sist/83c15814-7c52-4fe5-a9c4-019c18d5220e/sist-iso-6237-2020>



Reference number
ISO 6237:2017(E)

© ISO 2017

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST ISO 6237:2020

<https://standards.iteh.ai/catalog/standards/sist/83c15814-7c52-4fe5-a9c4-019c18d5220e/sist-iso-6237-2020>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2017, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword.....	iv
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Apparatus.....	1
4.1 Apparatus for preparation of adhesive.....	1
4.2 Test apparatus.....	1
5 Test specimens.....	2
6 Preparation of test panels.....	4
7 Conditioning of test panels.....	4
8 Preparation of specimens.....	4
9 Procedure.....	4
10 Expression of results.....	5
11 Test report.....	5
Annex A (normative) Information required prior to testing.....	7
Annex B (normative) Timber species, thickness, surfaces, quality and moisture content.....	8

(standards.iteh.ai)

SIST ISO 6237:2020

<https://standards.iteh.ai/catalog/standards/sist/83c15814-7c52-4fe5-a9c4-019c18d5220e/sist-iso-6237-2020>

ISO 6237:2017(E)

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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on 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 the following URL: www.iso.org/iso/foreword.html (standards.iteh.ai)

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 11, *Products*.

[https://standards.iteh.ai/catalog/standards/sist/83c15814-7c52-4fe5-a9c4-](https://standards.iteh.ai/catalog/standards/sist/83c15814-7c52-4fe5-a9c4-0181b1520d1e/iso-6237-2020)

This third edition cancels and replaces the second edition (ISO 6237:2003), which has been technically revised.

Adhesives — Wood-to-wood adhesive bonds — Determination of shear strength by tensile loading

1 Scope

This document specifies a method for determining the shear strength of wood-to-wood adhesive bonds, with a standard specimen loaded in tension and under specified conditions of preparation, conditioning and testing. This method is intended for testing only those adhesives used in bonding wood to wood in either parallel-laminated or cross-laminated construction.

This method is not intended for use in testing manufactured 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 472, *Plastics — Vocabulary*

iTeh STANDARD PREVIEW

3 Terms and definitions (standards.iteh.ai)

For the purposes of this document, the terms and definitions given in ISO 472 apply.

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

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

4 Apparatus

4.1 Apparatus for preparation of adhesive

4.1.1 Balance and equipment capable of measuring the proportions of the adhesive mix to within a tolerance of ± 1 %.

4.1.2 Mixing equipment to ensure homogeneous mixing of the constituents with minimum aeration of the adhesive (except foamed adhesive).

4.1.3 Spreading equipment such as a **wire-wound bar**, **roller spreader**, **curtain coater** or **suitable hand applicators**, capable of spreading the adhesive uniformly within ± 5 % of the desired thickness.

4.1.4 Equipment, designed to exert the required pressure evenly over the whole bonded area within ± 5 % of the desired value, for example a **press** or **clamps**. If necessary, **heated platens** capable of maintaining the prescribed temperature within ± 2 °C during pressing.

4.2 Test apparatus

4.2.1 Analytical balance.

ISO 6237:2017(E)

4.2.2 Linear measuring device, to read to 0,05 mm, e.g. vernier calipers or micrometer.

4.2.3 Test machine, capable of exerting a tensile force of at least 5 kN with an accuracy of $\pm 2\%$. The force shall be applied at a uniformly increasing rate in the range 2,5 kN/min to 6 kN/min or at a uniform crosshead speed between 0,5 mm/min and 1,0 mm/min unless otherwise agreed between the interested parties.

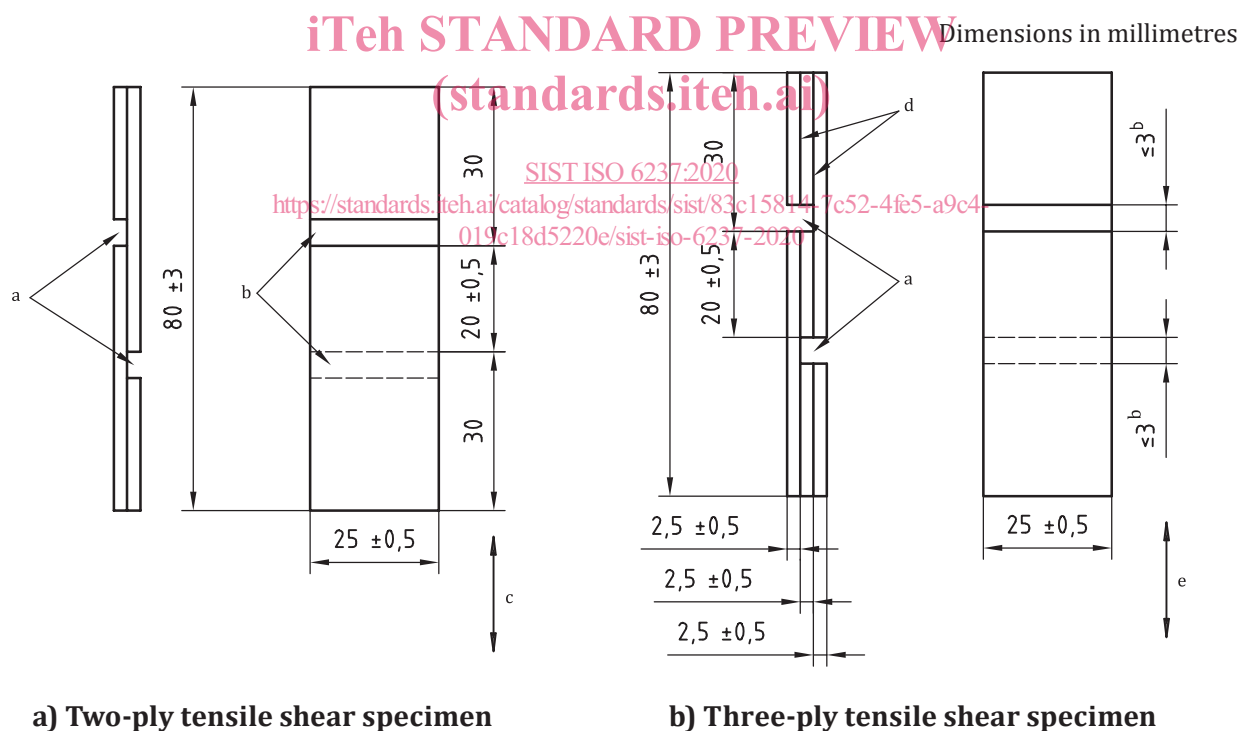
The test machine shall be equipped with suitable grips and jaws so that the specimen is held tightly without slipping during testing and is held in alignment so that the stress is applied as required in [Clause 9](#).

It is necessary for all equipment, including gauges, thermometers, etc., to be calibrated regularly, as prescribed by the test authority of each country.

5 Test specimens

5.1 The timber species, timber quality and timber moisture content for the specimens shall be as described in [Annex B](#).

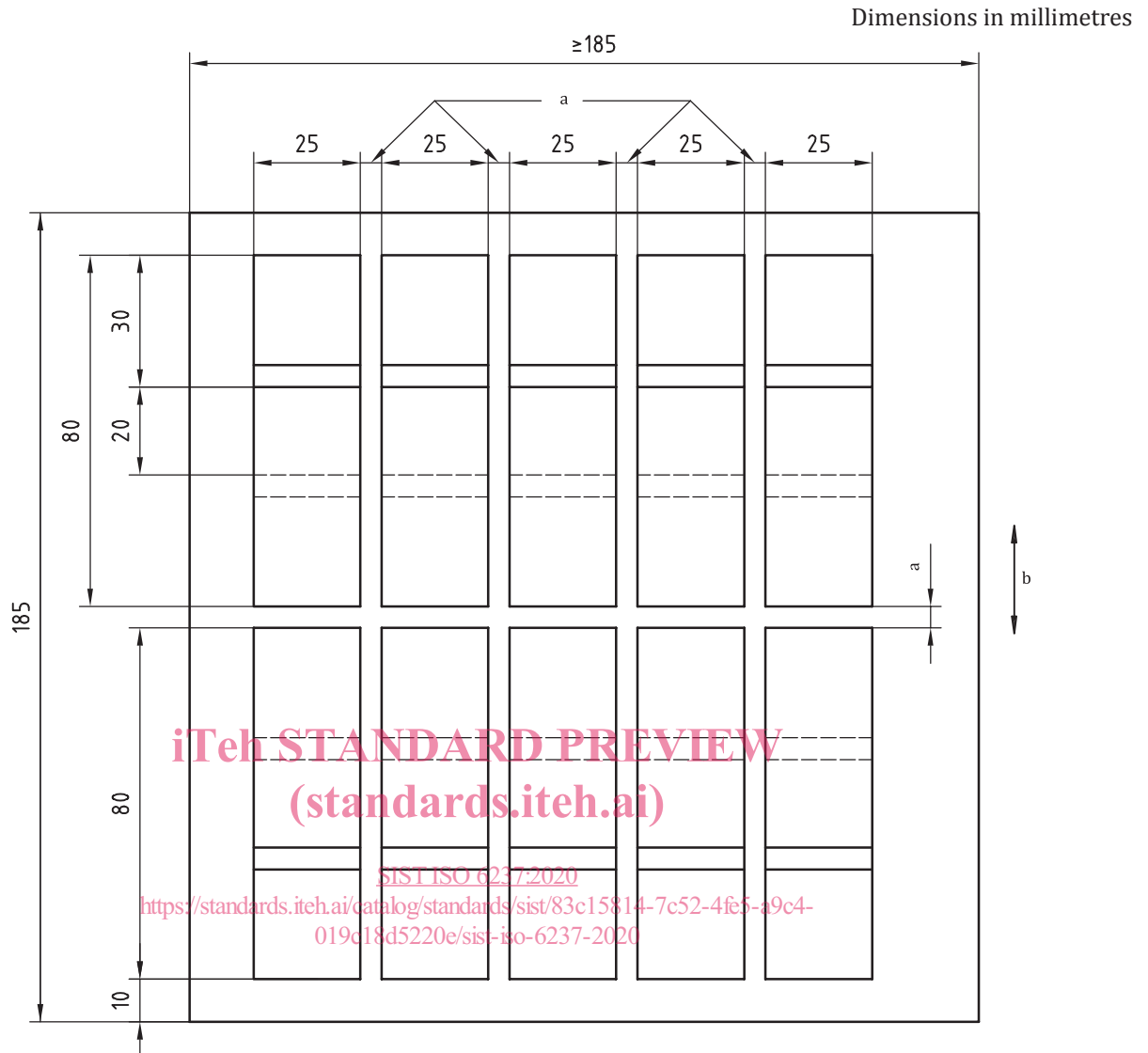
5.2 The test specimen shall be of a two-ply or three-ply construction and shall conform to the form and dimensions shown in [Figures 1](#) and [2](#). The test specimens shall be cut from test panels prepared as described in this clause and [Clause 6](#).



Key

- a Cut up to but not beyond glue line.
- b Width of sawcut.
- c Direction of grain of both veneers.
- d Glue lines.
- e Direction of grain of face veneers (direction of grain of central veneer shall be at right angles to grain of two face veneers).

Figure 1 — Test specimens

**Key**

- a Width of sawcut.
- b Direction of grain.

Figure 2 — Suggested arrangement of specimens

5.2.1 For the specimen of two-ply construction, the grain of both plies shall be parallel to the long dimension of the specimen.

5.2.2 For the specimen of three-ply or cross-laminated construction, the grain of the face plies shall be parallel to the long dimension of the specimen and the grain of the centre ply shall be parallel to the short dimension of the specimen and at right angles to the grain of the two outer plies.

NOTE Both types are suitable for general testing of close contact adhesives but values obtained with the two different specimens are not comparable. Two-ply specimens are often used for applications where the grain of the adherends is parallel while the three-ply specimens may be preferred for adhesives predominantly used in the production of wooden panels such as plywood or particle board.

5.2.3 For adhesive quality control purposes, test a minimum of four specimens from each of three panels of similar construction.