Adhesives - Wood adhesives - Determination of tensile strength of lap joints at elevated temperature (WATT '91)

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NATIONAL FOREWORD

See Eesti standard EVS-EN 14257:2019 sisaldab Euroopa standardi EN 14257:2019 ingliskeelset teksti.	This Estonian standard EVS-EN 14257:2019 consists of the English text of the European standard EN 14257:2019.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 25.09.2019.	Date of Availability of the European standard is 25.09.2019.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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English Version

Adhesives - Wood adhesives - Determination of tensile strength of lap joints at elevated temperature (WATT '91)

Adhésifs - Adhésifs pour bois - Détermination de la résistance en traction à température élevée des joints à recouvrement (essai WATT '91)

Klebstoffe - Holzklebstoffe - Bestimmung der Klebfestigkeit von Längsklebungen im Zugversuch in der Wärme (WATT'91)

This European Standard was approved by CEN on 5 August 2019.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 14257:2019) has been prepared by Technical Committee CEN/TC 193 “Adhesives”, the secretariat of which is held by UNE.

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of an identical text or by endorsement, at the latest by March 2020, and conflicting national standards shall be withdrawn at the latest by March 2020.

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.

This document supersedes EN 14257:2006.

In comparison with the previous edition, the following technical modifications have been made:

— Clause 4 “Principle” revised;

— 5.1 relevant to tensile testing machine revised;

— 6.1 “Preparation of the bonded test pieces”: number of the test pieces modified;

— Clause 7 “Test procedure” revised;

— 9.3 “Preparation of the test pieces and testing procedures” revised;

— 9.4 “Test results” revised.

SAFETY STATEMENT — Persons using this document should be familiar with the normal laboratory practice, in principle. This document does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any regulatory conditions.

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1 Scope

This document specifies a method for testing the strength of wood adhesives at 80 °C.

NOTE The procedure described is based on a test developed in Germany known originally as the WATT '91 test. It uses the test piece described in EN 205.

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.

EN 205, *Adhesives — Wood adhesives for non-structural applications — Determination of tensile shear strength of lap joints*

EN 923, *Adhesives — Terms and definitions*

ISO 5893, *Rubber and plastics test equipment — Tensile, flexural and compression types (constant rate of traverse) — Specification*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 923 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 Principle

A symmetrical bonded lap joint between two wooden adherents is subjected to a period of heating at controlled temperature and then strained to rupture by a longitudinal force parallel to the grain.

The heating test is carried out on thin (0,1 mm) glue lines.

5 Apparatus

5.1 Tensile testing machine, as described in ISO 5893, capable of maintaining a constant strain rate. The jaws shall be mounted in such a way as to permit self-alignment whilst the test pieces are being pulled.

5.2 Fan assisted oven, capable of maintaining a temperature of (80 ± 2) °C.

6 Sample preparation

6.1 Preparation of the-test pieces

Prepare 20 test pieces in accordance with the procedure described in EN 205.