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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 33333-2016

**Determination of shear strength by tensile loading in wood
adhesives**

木材胶粘剂拉伸剪切强度的试验方法

(English Translation)

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Foreword

This standard is drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the re-drafting method to modify ISO 6237.:2003 "Adhesive wood and wood adhesion tensile shear strength of the test set".

This standard has some structural changes compared to ISO 6237.:2003, which is listed in Appendix C to the ISO 6237.:2003 A comparison of the numbers.

The technical differences between this standard and ISO 6237.:2003 are as follows.

--- on the normative reference documents, the standard made a technical differences in the adjustment to meet the technical conditions of China. Adjust the situation the situation is reflected in Chapter 2, "Normative references", as follows.

- ISO 291, ISO 472 removed;

- Added reference to GB/T 2943 (see Chapter 3);

- increased woodworking terminology (see 3.1);

--- modified the thickness of the specimen part of the provisions of the original provisions of the board thickness of 2.5mm, changed to two kinds of specimen thickness range of two Increase the practicality of the standard (see 5.2.1 and 5.2.2);

--- Increased calculation of wood breakage formula for easy operation (see 9.4);

- Added the domestic wood type suitable for the adhesive shear test in Appendix B for ease of use (see Table B.2 in Appendix B).

This standard has been modified as follows.

--- Change the standard name to "Test method for tensile shear strength of wood adhesives".

This standard is proposed by the China Petroleum and Chemical Industry Association.

This standard is under the jurisdiction of the National Adhesive Standardization Technical Committee (SAC/TC185).

The drafting unit of this standard. Jiangsu black pine adhesive plant Co., Ltd., China Forestry Research Institute of Wood Industry Research Institute, brother two good new Material Co., Ltd., Shanghai Donghe Adhesive Co., Ltd., Zhongke Huayu (Fujian) Technology Development Co., Ltd., Shanghai Rubber Products Research Limited company.

1 Scope

This standard provides a method for determining the shear strength of wood adhesives by means of a tensile load using a standard test piece under given environmental conditions.

This standard is applicable to the determination of tensile shear strength of adhesives when the wood and wood are bonded or vertically bonded.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article Pieces. For undated references, the latest edition (including all modifications) applies to this document.

GB/T 2943 Adhesive Terminology

3 Terms and definitions

GB/T 2943 and the following terms and definitions apply to this document.

Wood break rate woodfailureratio when the bonded specimen is broken, the area of the woody part of the adhesive surface and the percentage of the bonded area.

4.1 Sample preparation equipment

4.1.1

Balance. The mass used to weigh the adhesive in proportion, the error range of 1%.

4.1.2

mixing equipment. a small amount of oxygen and can evenly mix the adhesive composition (except for styrofoam).

4.1.3

Coating equipment. such as wire rods, drum type applicators, curtain applicators or suitable manual applicators. Can be in the deviation of the adhesive 5% evenly coated.

4.1.4

bonding equipment. in the bonding process can provide pressure and deviation within the scope of 5% of the equipment, such as pressure plate, clip. For hot Pressure bonding, the hot plate can maintain the hot-pressure process in the temperature deviation of 2 °C.

4.2 Test equipment

4.2.1

Analysis of the balance. the amount of 0.01g.

4.2.2

vernier caliper or micrometer. scale value 0.05mm.

4.2.3

Tensile testing machine. the maximum load range of 10kN, the accuracy of 2%. The uniform loading rate of the test machine is in the range of 2.5 kN/min 6 kN/min, or a uniform vertical loading rate of 0.5 mm/min and 1.0 mm/min.

The test machine should be equipped with suitable clips and bolts to keep the test piece fixed during the test without slipping and keeping a straight line from and meet the test requirements of Chapter 8.

5 Specimen

5.1

As the type of wood used for bonding specimens, the wood quality and moisture content are described in the Appendix A or Appendix B.