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

GB/T 6328-2021

Test method for shear impact strength of adhesive bonds

Issued on: August 20, 2021

Implemented on: March 1, 2022

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

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Foreword

This document is in accordance with GB/T 1.1-2020 "Guidelines for Standardization Part 1. Structure and Drafting Rules of Standardization Documents".

To be drafted.

This document replaces GB/T 6328-1999 "Adhesive Shear Impact Strength Test Method", compared with GB/T 6328-1999, except for

In addition to the editorial changes, the main technical changes are as follows.

- a) In the scope of application, plastic-plastic specimens have been added, and the determination of shear impact strength of wood-wood specimens has been deleted (see Chapter 1, Chapter 1 of the.1999 edition);
- b) Added normative reference documents (see Chapter 2);
- c) Deleted the principle of shear impact strength test (see Chapter 3 of the.1999 edition);
- d) The sample requirements, number of samples, sample preparation, condition adjustment, and test procedures for wood-wood samples have been deleted (see the.1999 edition of the 5.2, 6.2, 7.1.2, 8.2, 9.1, 9.4.4);
- e) Added requirements for adjusting the state of plastic samples (see 5.4.2);
- f) The type of damage is added to the test report (see 7.3.3, Chapter 9).

This document uses the redrafting method to modify and adopt ISO 9653.1998 "Adhesive Shear Impact Strength Test Method".

Compared with ISO 9653.1998, this document has many adjustments in structure. Appendix A lists this document and ISO 9653.1998.

A list of changes in the chapter number.

Compared with ISO 9653.1998, this document has technical differences. Appendix B gives a list of technical differences and their reasons.

This document has made the following editorial changes.

---Modified the standard name;

---The note 5.1.3 in ISO 9653.1998 is deleted.

1 Scope

This document specifies the test equipment, specimen preparation and test methods for the shear impact strength of adhesives.

This document applies to the determination of the shear impact strength of metal-to-metal, plastic-to-plastic, and metal-to-plastic bonding parts.

2 Normative references

The contents of the following documents constitute the indispensable clauses of this document through normative references in the text. Among them, dated quotations

Only the version corresponding to that date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

This document.

GB/T 2918 Standard environment for condition adjustment and testing of plastic specimens (GB/T 2918-2018, ISO 291.2008, MOD)

GB/T 2943 Adhesive Terminology

Representation of GB/T 16997 adhesive main failure types (GB/T 16997-1997, idtISO 10365.1992)

GB/T 20740 Adhesive sampling

GB/T 21526 Guidelines for the surface treatment of metals and plastics before bonding with structural adhesives (GB/T 21526-2008, ISO 17212.

2004, IDT)

GB/T 35489 Adhesive aging conditions guide (GB/T 35489-2017, ISO 9142..2003, MOD)

3 Terms and definitions

The following terms and definitions defined in GB/T 2943 apply to this document.

3.1

Impact strength

The energy absorbed when the sample is hit by the pendulum of an impact testing machine.

Note. The unit is expressed in Joules per square meter (J/m²).

4.1.1 Pendulum impact testing machine. The pendulum speed is 3.4m/s.

4.1.2 The hammer surface of the pendulum is flat and slightly wider than the impacted test piece in order to achieve a complete collision.

4.2.1 See Figure 1 for an example of a fixture for the test piece.

4.2.2 The fixing device is made of steel and is fixed on the base of the testing machine with screws. Drill holes on the corners so that the test piece is completely embedded in the support of the fixing device.

On the supporting end surface, when the test piece is made of plastic, there is a metal sheet in front of the screw.

4.2.3 The fixing device ensures that the test piece is hit when the pendulum reaches its maximum speed.

4.2.4 The fixed device remains stable under the impact of the pendulum of the testing machine and does not move.