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

GB/T 13477.14-2019

**Test method for building sealants -- Part 14: Determination of
resistance to prolonged exposure to water**

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Foreword

GB/T 13477 "Test Methods for Building Sealing Materials" is divided into the following sections.

---Part 1. Specification for test substrates;

--- Part 2. Determination of density;

--- Part 3. Method for determining the extrudability of sealing materials using standard instruments;

--- Part 4. Determination of extrudability of single-component sealing materials in original packaging;

--- Part 5. Determination of dry time;

--- Part 6. Determination of fluidity;

--- Part 7. Determination of low temperature flexibility;

---Part 8. Determination of tensile cohesiveness;

---Part 9. Determination of tensile cohesiveness after immersion;

--- Part 10. Determination of the adhesion and adhesion;

--- Part 11. Determination of the adhesion and adhesion after immersion;

---Part 12. Determination of cohesiveness after stretching-compression cycle at the same temperature;

--- Part 13. Determination of cohesiveness after cold drawing - hot pressing;

---Part 14. Determination of cohesiveness after immersion and stretching-compression cycles;

--- Part 15. Determination of cohesiveness after exposure to heat, glass-through artificial light source and water;

---Part 16. Determination of compression characteristics;

--- Part 17. Determination of elastic recovery rate;

---Part 18. Determination of peel adhesion;

--- Part 19. Determination of mass and volume changes;

--- Part 20. Determination of pollution.

This part is the 14th part of GB/T 13477.

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

This part replaces GB/T 13477.14-2002 "Test Methods for Building Sealing Materials - Part 14. Immersion and Stretching - Compression Cycles

Determination of post-adhesiveness, compared with GB/T 13477.14-2002, except for editorial changes, the main technical changes are as follows.

--- Revised scope (see Chapter 1, Chapter 1 of the.2002 edition);

---In the test equipment and materials, modified the blast drying oven, testing machine, measuring tool, bonding substrate, spacer block and positioning pad, increase

Container (see Chapter 6, Chapter 6 of the.2002 edition);

--- In the preparation of the test piece, the pretreatment conditions and time of the sample to be tested and the substrate were modified (see Chapter 7, Chapter 7 of the.2002 edition);

--- In the processing of the test piece, the "Note" was modified, and the "Placement conditions and time of the test piece after the B method was added" was added.

The test piece may be treated by Method A or Method B (see Chapter 8, Chapter 8 of the.2002 edition);

--- Revised the test procedure (see Chapter 9, Chapter 9 of the.2002 edition);

--- Revised the test report (see Chapter 10, Chapter 10 of the.2002 edition).

This section uses the redrafting method to modify the use of ISO 13638.1996

"Determination of long-term water resistance of building structural sealants."

This section has more structural adjustments than ISO 13638.1996. This section is listed in Appendix A with ISO 13638.1996.

The chapter number is compared to the list.

There are technical differences in this section compared to ISO 13638.1996, and the terms involved in these differences have been passed through the margins on the outer side of the page.

The vertical single line (-) is marked, and a list of the corresponding technical differences and their causes is given in Appendix B.

This section also makes the following editorial changes compared to ISO 13638.1996.

--- Revised the standard name, and changed the "Measurement of long-term water resistance" to "Measurement of adhesion after immersion and stretching-compression cycles".

This part was proposed by the China Building Materials Federation.

This part is under the jurisdiction of the National Technical Committee for Standardization of Lightweight and Decorative Building Materials (SAC/TC195).

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1 Scope

This part of GB/T 13477 specifies that sealants for construction and civil engineering are subjected to different degrees of water cycle exposure under the conditions of use.

Terms and definitions, principles, standard test conditions, test equipment and materials, test piece preparation, test piece handling, test procedures and tests for adhesion determination

report.

This section applies to the determination of the bonding properties of the sealant after continuous water immersion and tensile-compression cycles within the specified time.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 13477.1 Test methods for building sealing materials - Part 1. Specification for test substrates (GB/T 13477.1-2002,

ISO 13640.1999, MOD)

GB/T 13477.12 Test methods for building sealing materials - Part 12. Determination of cohesives

(GB/T 13477.12-2018, ISO 9046.2002, MOD)

GB/T 13477.13 Test methods for building sealing materials - Part 13. Determination of cohesive properties after cold-column compression (GB/T 13477.13-

2019, ISO 9047..2001, MOD)

GB/T 14682 Building sealing material terminology (GB/T 14682-2006, ISO 6927.1981, NEQ)

GB/T 22083 Building sealant classification and requirements (GB/T 22083-2008, ISO 11600.2002, MOD)

3 Terms and definitions

The terms and definitions defined in GB/T 14682 apply to this document.

4 Principle

A test piece was prepared by bonding a sealant sample between the surfaces of two parallel substrates. Soak the test piece in water under the specified conditions, then press

50% of the displacement capacity corresponding to the sealant classification. Determine the tensile-compression range and perform a repeated tensile-compression test. This procedure is repeated a certain number of times

Number, or until one or more specimens are observed to be destroyed. The number of repetitions of the water immersion and stretching-compression cycles can predict the actual use of the sealant

Water resistance.

Immersion can be carried out at ambient temperature (23 ° C) or at higher temperatures