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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 13477.23-2022

Test method for building sealants - Part 23: Durability to extension compression cycling under accelerated weathering

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foreword

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

to be drafted.

This document is part 23 of GB/T 13477 "Test Methods for Building Sealing Materials". GB/T 13477 has issued the following

part.

--- Part 1.Requirements 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 original packaging single-component sealing materials;

--- Part 5.Determination of surface dry time;

--- Part 6.Determination of fluidity;

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

--- Part 8.Determination of tensile adhesion;

--- Part 9.Determination of tensile adhesion after immersion in water;

--- Part 10.Determination of elongation adhesion;

--- Part 11.Determination of tensile adhesion after immersion in water;

--- Part 12.Determination of cohesion after tension-compression cycle at the same

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temperature;

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

--- Part 14.Determination of cohesion after immersion in water and tension-compression cycles;

--- Part 15.Determination of adhesion after exposure to heat, artificial light through glass 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;

--- Part 21.Determination of color change after artificial accelerated weathering;

--- Part 22.Determination of curing characteristics;

--- Part 23.Determination of durability after tensile-compression cycles under artificial accelerated weathering.

This document is modified to adopt ISO 19862.2015 "Building and civil engineering sealants after tensile-compression cycles under accelerated weathering

Durability".

Compared with ISO 19862.2015, this document has more structural adjustments. Comparison overview of structure number changes between two files

See Appendix A for the table.

Compared with ISO 19862.2015, this document has more technical differences, and vertical

A single line (?) is indicated. See Appendix B for a list of these technical differences and their causes.

The following editorial changes were made to this document.

--- In order to coordinate with the existing standards, the name of the standard is changed to "Test methods for building sealing materials - Part 23.Artificially accelerated weathering

Determination of durability after tension-compression cycle";

--- Deleted the "note" in 5.10 and 5.11.3 of ISO 19862.2015;

---Change the title of Table 1 from "Sealant Level" to "Tensile-compression range and

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corresponding width value of test piece";

--- Change the "note" of 8.2 in ISO 19862.2015 to the "footnote" of Table 1.

Please note that some contents of this document may refer to patents. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

Building sealing materials are a type of functional building materials that can withstand joint displacement to achieve airtight and watertight purposes and are embedded in building joints.

It is of great significance to improve the sealing, energy saving, waterproof, sound insulation, dustproof and other functions of buildings. In response to the country's priority development of new defense

The planning outline of water sealing materials, standardize product quality, and guide the healthy and orderly development of the product market. From the 1980s to the present, my country has gradually

A relatively complete standard system for building sealing materials has been established. GB/T 13477 is an important component of the standard system for building sealing materials.

Based on the international standard system documents corresponding to ISO /TC59/SC8, 23 parts have been released and implemented.

GB/T 13477 is a basic and general test method standard to guide the performance testing of building sealant products in my country.

Provide technical support for product standard setters, producers, and developers. GB/T 13477 is divided into 5 categories, classification and some structures that have been published and implemented

into the following.

---Test conditions (Part 1), specifying conditions such as test substrates;

---Construction performance category (Part 3~Part 6, Part 22), specifying the extrudability, pot life, surface dry time, flow of the product

Determination methods of properties, curing properties, etc.;

---Physical/mechanical properties (Part 2, Part 7, Part 16, Part 17, Part 19), specifying the density of the product,

Determination methods for low temperature flexibility, compression properties, elastic recovery rate, mass and volume changes, etc.;

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---Adhesive properties with the base material (Part 8~Part 14, Part 18), specifying the tensile adhesion and constant elongation adhesion of the product

Determining methods of adhesion, adhesion after water immersion, adhesion after tension-compression, peel adhesion, adhesion after high/low temperature treatment, etc.;

---Durability/Aesthetics (Part 15, Part 20, Part 21, Part 23), specifying the artificial weathering resistance of the product

Determination methods such as property, pollution property, dust accumulating property, appearance change, etc.

This document is part 23 of GB/T 13477, which belongs to the category of durability/aesthetics, and specifies the

The test method for the durability after tension-compression cycle under artificial accelerated weathering provides a reliable method for selecting and evaluating the durability level of sealants.

The basis is conducive to the elimination of technical barriers to trade and better promotion of trade, exchanges and technical cooperation.

Building sealing materials test methods part 23.

Tension-compression under artificial accelerated weathering

Determination of durability after cycling

1 Scope

This document specifies the method for the determination of the durability of sealants used in construction and civil engineering after tension-compression cycles under artificial accelerated weathering

Principle, standard test conditions, test apparatus and materials, specimen preparation, specimen handling, test procedure, result evaluation and presentation, test report.

This document is applicable to the determination and grade evaluation of the durability of sealants for outdoor use after tension-compression cycles under artificial accelerated weathering.

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text. Among them, dated references

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

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