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Buildings and civil engineering works — Sealants — Determination of change in mass and volume

Bâtiments et ouvrages de génie civil — Mastics — Détermination des variations de masse et de volume

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 59, *Buildings and civil engineering works*, Subcommittee SC 8, *Sealants*.

This third edition cancels and replaces the second edition (ISO 10563:2005), which has been technically revised.

The main changes compared to the previous edition are as follows:

— To include the determination of loss of volume for self- levelling sealants;

— To precise the target of the test: not intended to determine the absolute maximum value of loss of volume of a tested sealant, but it is an indicative measurement of the loss of volume under specified parameters;

— To precise the conditioning time: (28 days +/- 3 hours) at (23 +/- 2) °C & (50 +/- 10)% RH, then (7 days +/- 2 hours) at (70 +/- 2) °C;

— To precise the apparatus;

— To precise the localization of the filled rings in the oven.

Buildings and civil engineering works — Sealants — Determination of change in mass and volume

1 Scope

This document specifies a method for the determination of the change of mass and the change of volume of self-levelling and non-sagging sealants used in joints in building construction.

NOTE This test procedure is not intended to determine the absolute maximum value of loss of volume of a tested sealant, but it is an indicative measurement of the loss of volume under specified parameters.

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.

ISO 6927, *Buildings and civil engineering works — Sealants — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6927 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 http://www.iso.org/obp

4 Principle

Test specimens consist of either metal rings filled with non-sagging sealant or metal moulds filled with self-levelling sealant. The rings or moulds are weighed in air and in water, before and after filling, before and after specific conditioning. The change in mass and in volume of the tested sealant is calculated.

5 Apparatus and materials

5.1 Rings of non-corrosive metal for non-sagging sealant, having the following dimensions: inner diameter, (30 ± 1) mm; height, (10 ± 0,1) mm. A hook or loop is fixed to each ring to suspend it from a string for the weighing procedure.

5.2 Anti-adherent substrate for non-sagging sealant, for the preparation of test specimens.

EXAMPLE Wet paper.

5.3 Moulds of non-corrosive metal for self-levelling sealant, having the following dimensions: inner diameter, (30 ± 1) mm; inner depth, (10 ± 0,1) mm.

5.4 Balance, with an accuracy of 0,01 g, capable of being used to weigh the test specimens in air and immersed in test liquid.