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7390

Second edition  
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МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

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## Building construction — Jointing products — Determination of resistance to flow

*Construction immobilière — Produits pour joints — Détermination de la résistance au coulage*

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Reference number  
ISO 7390:1987 (E)

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 7390 was prepared by Technical Committee ISO/TC 59, *Building construction*.

This second edition cancels and replaces the first edition (ISO 7390:1982), clauses 3.2.2 and 3.3 of which have been technically revised.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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# Building construction — Jointing products — Determination of resistance to flow

## 1 Scope and field of application

This International Standard specifies a method for the determination of resistance to flow of sealants to be used in joints of vertical surfaces in building construction.

## 2 Reference

ISO 6927, *Building construction — Jointing products — Sealants — Vocabulary.*

## 3 Test method

### 3.1 Principle

Exposure of samples of the sealant to be tested, filled in aluminium U-profiles, for a defined time to various defined temperatures with the surface of the sealant in a vertical position. Measurement of the flow of the sealant out of the U-profiles at the end of the testing time.

### 3.2 Apparatus

**3.2.1 U-profiles of non-anodized aluminium alloy**, with a length of  $150 \pm 0,2$  mm, with both ends open and the back surface at one end extended by  $50 \pm 0,5$  mm, having a cross-section with the following internal dimensions :

- a) width  $10 \pm 0,2$  mm, depth  $10 \pm 0,2$  mm, or
- b) width  $20 \pm 0,2$  mm, depth  $10 \pm 0,2$  mm.

**3.2.2 Strips of polyethylene sheet**, 0,5 mm maximum thick, and with a width to cover the inner back sides of the U-profiles.

**3.2.3 Convection-type oven**, capable of operating at  $70 \pm 2$  °C.

**3.2.4 Convection-type oven**, capable of operating at  $50 \pm 2$  °C.

**3.2.5 Refrigerated container**, controlled at  $5 \pm 2$  °C.

**3.2.6 Rule**, with scale in millimetres.

### 3.3 Preparation of test specimens

Use an appropriate number of U-profiles<sup>1)</sup> (3.2.1) according to 3.4. Place a strip of polyethylene sheet (3.2.2) on the inner back side of each U-profile, overlapping at the top and fixed at the outer reverse side. Then the volumes of the U-profiles are filled with sealant which has previously been conditioned for 24 h at  $23 \pm 2$  °C.

The following precautions shall be taken :

- a) avoid the formation of air bubbles;
- b) press the sealant on the inner profile surfaces;
- c) trim the sealant surface so that it is flush with the face and the ends of the U-profile.

### 3.4 Procedure

For each test temperature of 70, 50 and 5 °C, three test specimens shall be used. The test specimens shall be tested either according to procedure A (see 3.4.1) or according to procedure B (see 3.4.2), or both of them, as agreed.

#### 3.4.1 Procedure A

Each test specimen, immediately after the preparation, shall be placed in the oven (3.2.3 or 3.2.4) or in the container (3.2.5) in a vertical position with the extensions of U-profiles at the bottom (see figure 1). It shall be submitted for 24 h to each test temperature and then removed from the oven and the container. The distance that the bottom edge of the sealant of each test specimen has moved downward along the extended back surface of the U-profile shall be measured in a vertical direction with the rule (3.2.6).

#### 3.4.2 Procedure B

Each specimen, immediately after the preparation, shall be placed in the oven (3.2.3 or 3.2.4) or in the container (3.2.5) in a horizontal position with the open sealant surface in a vertical plane (see figure 2). It shall be submitted for 24 h to each test temperature and then removed from the oven and the container. The distance that the sealant has projected beyond the front of the U-profile of each test specimen shall be measured in a horizontal direction with the rule (3.2.6).

1) The U-profiles shall be first cleaned with methyl ethyl ketone or similar solvent, then cleaned with a detergent solution and finally rinsed with distilled water and air dried.

#### 4 Test report

The test report shall contain the following information :

- a) a reference to this International Standard;
- b) name and type of sealant;
- c) batch of sealant from which the test specimens were produced, if possible;
- d) inside dimensions of U-profiles according to 3.2.1;

- e) applied test procedure according to 3.4;
- f) flow of the sealant of each test specimen in millimetres, rounded to the nearest 1 mm, measured in accordance with the applied test procedure and stated with the test temperature applied;
- g) the arithmetic mean of the flow of the test specimens of the same test temperature and the same procedure;
- h) any operations not specified in this International Standard which might have affected the results.

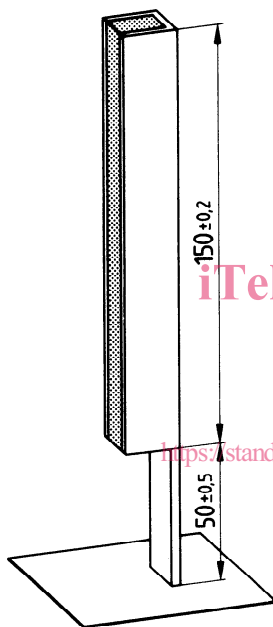


Figure 1 — Test specimen, position for procedure A

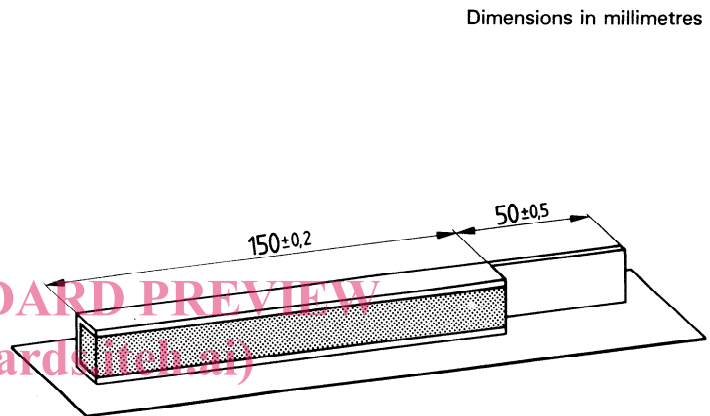


Figure 2 — Test specimen, position for procedure B

Dimensions in millimetres

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