INTERNATIONAL STANDARD

ISO 5978

Second edition
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Rubber- or plastics-coated fabrics — Determination of blocking resistance

Supports textiles revêtus de caoutchouc ou de plastique — Détermination de la résistance au blocage

Reference number
ISO 5978:1990(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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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 5978 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products.*

This second edition cancels and replaces the first edition (ISO 5978:1979), of which it constitutes a minor technical revision.

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Introduction

Blocking tests at elevated temperatures are designed to estimate the relative resistance of rubber- or plastics-coated fabrics to blocking. For this purpose, the coated fabric is subjected to a specified load over a defined area at a specific temperature.

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Rubber- or plastics-coated fabrics — Determination of blocking resistance

1 Scope

This International Standard specifies a method for the determination of the resistance of rubber- or plastics-coated fabrics to blocking.

The method specified is acceptable in most cases. If it is desired to use conditions other than those specified, these may be mutually agreed between the contracting parties but such variations shall be stated in the test report.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2231:1989, *Rubber- or plastics-coated fabrics — Standard atmospheres for conditioning and testing.*

3 Definition

For the purposes of this International Standard, the following definition applies.

blocking: An unintentional adherence between materials.

[Definition taken from ISO 472:1988, *Plastics — Vocabulary.*]

4 Apparatus

4.1 Glass plates, measuring approximately 150 mm × 150 mm × 3 mm.

4.2 Weight-piece, of mass 5,0 kg.

4.3 Circulating-air oven, of such a size that the total volume of the test assemblies does not exceed 10 % of the free space in the oven.

Provision shall be made for placing the test assemblies on shelves so they are not less than 50 mm from each other or from the sides of the oven.

The nature of the source of heat is optional but the source shall be located in the air supply of the oven.

Provision shall be made for circulation of air through the oven at a rate such as to provide a minimum of six air changes per hour.

The temperature of the oven shall be thermostatically controlled to maintain the temperature of the test assemblies within ±2 °C of the specified temperature.

Baffles shall be used as required to prevent overheating and dead-spots.

5 Time interval between manufacture and testing

5.1 For all purposes, the minimum time between manufacture and testing shall be 16 h.

5.2 For non-product tests, the maximum time between manufacture and testing shall be four weeks, and for evaluations intended to be comparable, the tests, as far as possible, shall be carried out after the same time interval.

5.3 For product tests, whenever possible, the time between manufacture and testing shall not exceed three months. In other cases, tests shall be made within two months of the date of receipt by the customer.

6 Samples and test pieces

6.1 Samples shall be taken not less than 1 m from the end of the roll.

6.2 The test pieces for each sample to be tested shall consist of six specimens, each 150 mm × 150 mm.

6.3 Test pieces shall be representative of the material being tested. They shall be taken from the working width of the sample. They shall be cut with one edge parallel to the longitudinal axis of the sample.

The longitudinal and lateral axes shall be maked on the test pieces.

7 Conditioning of test pieces

The test pieces shall be conditioned in one of the standard atmospheres as defined in ISO 2231.

8 Procedure

8.1 Arrange the test pieces in pairs, back to back, face to face and back to face, to form a pile 150 mm square. Place the test pieces thus arranged between two glass plates (4.1). Place the 5,0 kg weight-piece (4.2) on the top plate in a position to ensure an even distribution of pressure.

8.2 Expose the test assembly for 3 h at a temperature of 70 °C ± 2 °C in the oven (4.3).

8.3 At the end of the exposure period, remove the test assembly from the oven, immediately take the test piece from between the plates and allow it to cool for 1 h. Then carefully separate the test pieces and examine them for adherence or peeling of the coatings.

8.4 Rate the resistance of each test piece to blocking by the scale given below:

1 — No blocking: coated surfaces separate without any evidence of adhering.

2 — Slight blocking: some adherence of coated surfaces takes place on separation, but without detriment to the coating.

3 — Blocking: coated surfaces are difficult to separate; the coating or part of the coating is removed during separation.

9 Test report

The test report shall include the following particulars:

a) a reference to this International Standard;

b) all details necessary for the identification of the sample;

c) the conditioning atmosphere used (see clause 7);

d) the total mass on the test piece;

e) the rating for resistance to blocking, in accordance with 8.4;

f) any departure from the procedure specified.

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Descriptors: coated fabrics, fabrics coated with rubber, fabrics coated with plastics, tests, adhesion tests, adhesive strength.

Price based on 2 pages