INTERNATIONAL STANDARD 3011

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Fabrics coated with rubber or plastics — Determination of resistance to ozone cracking under static conditions

Supports textiles revêtus de caoutchouc ou de matières plastiques — Détermination de la résistance aux craquelures dues à l'ozone dans des conditions statiques

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

International Standard ISO 3011 was drawn up by Technical Committee ISO/TC 45, *Rubber and rubber products,* and circulated to the Member Bodies in January 1973.

It has been approved by the Member Bodies of the following countries :

Australia	India	Sweden
Austria	Italy	Switzerland
Belgium	Netherlands	Thailand
Brazil	New Zealand	United Kingdom
Egypt, Arab Rep. of	Portugal	U.S.A.
France	Romania	U.S.S.R.
Hungary	South Africa, Rep. of	

No Member Body expressed disapproval of the document.

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Fabrics coated with rubber or plastics — Determination of resistance to ozone cracking under static conditions

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the conditions of test for determining the resistance of fabrics coated with rubber or plastics to ozone cracking under static conditions.

The test is designed to determine the relative resistance to cracking of fabrics coated with rubber or plastics when exposed under static strain to air containing ozone in the absence of direct sunlight.

Like all ageing tests, it should be considered as a means of comparing articles of the same composition and destined for the same application, but not as an absolute criterion. It is preferable to limit the significance of the test by considering it only as a means of control when a fabrication attains a resistance superior to a threshold given in comparison with a certain type of degradation.

Taking these remarks into account, the results obtained at the time of test cannot be taken as a prediction of the length of life of the product.

2 REFERENCE

ISO 1431-1972, *Vulcanized rubbers — Determination of resistance to ozone cracking under static conditions.*

3 PRINCIPLE

Exposure of test pieces to ozone under specified conditions. Assessment of the effects of ozone by measurement of the time at which the first crack appears or of the time of exposure in which no cracks appear, as appropriate.

4 APPARATUS

4.1 Test chamber

The test chamber and ancillary apparatus shall be in accordance with ISO 1431.

4.2 Test piece holder (see figure)

The test piece holder shall consist of a mandrel and clamps. The diameter of the mandrel shall be 2, 5, 10 or 20 times the thickness of the test piece, as agreed between the interested parties, but not less than 0,8 mm. The mandrel and clamps shall be made of a material which does not absorb ozone, for example stainless steel, polymethacrylate, wood coated with a lacquer that does not absorb ozone, or duralumin, and shall have a smooth finish.

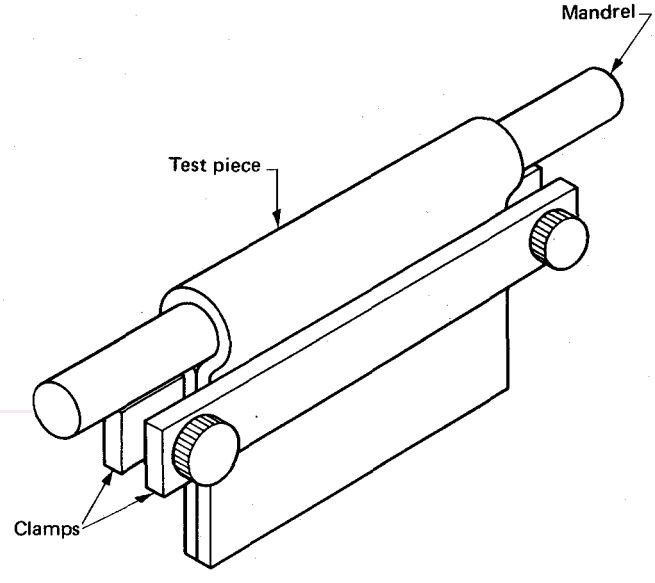

FIGURE — **Test piece holder**

5 TEST PIECE

5.1 Type of test piece

The test piece shall be of sufficient size to permit a proper evaluation of the exposed surface after test, and a satisfactory comparison of different test pieces. The preferred size is 25 mm wide and 100 mm long.

5.2 Selection of test pieces

Test pieces shall be taken at least 0,10 m from the selvedge, and at least 1 m from the beginning or end of a sample piece which is as representative as possible of the whole consignment.

5.3 Number of test pieces

Three test pieces in each direction of the fabric for each coated face shall be prepared.