INTERNATIONAL STANDARD 1419

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Fabrics coated with rubber or plastics — Accelerated ageing and simulated service tests

Supports textiles revêtus de caoutchouc ou de plastique — Essais de vieillissement accéléré et de tenue à la chaleur

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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 1419 was developed by Technical Committee ISO/TC 45, *Rubber and rubber products.*

It was submitted directly to the ISO Council, in accordance with clause 6.12.1 of the Directives for the technical work of ISO. It cancels and replaces ISO Recommendation R 1419-1970, which had been approved by the member bodies of the following countries :

Australia	India	New Zealand
Austria	Iran	Poland
Czechoslovakia	Ireland	Spain
Egypt, Arab Rep. of	Israel	Sweden
France	Italy	Switzerland
Germany	Japan	United Kingdom
Hungary	Netherlands	U.S.A

No member body had expressed disapproval of the document.

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Fabrics coated with rubber or plastics — Accelerated ageing and simulated service tests

0 INTRODUCTION

This International Standard deals with the accelerated ageing and simulated service testing of test pieces of fabric coated with rubber or plastics, using the method specified in ISO 188.

The ageing test of coated fabrics consists in subjecting test pieces having previously determined physical properties to controlled deteriorating influences for known periods, after which the physical properties are again measured and compared with the corresponding properties of unaged test pieces.

The selection of the ageing time and temperature will depend on the purpose of the test and the type of coated fabric. This selection indicates whether an accelerated ageing or a simulated service (heat) test is to be used.

The physical properties used to measure the deterioration of coated fabrics are breaking strength, burst strength, tear strength, or other desired physical properties. Tests may also be conducted to ascertain the degree of stiffness, decomposition, extreme softening or hardening, discoloration, odour and embrittlement.

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies an oven method and an oxygen pressure method for estimating the relative heat deterioration resistance of fabrics coated with rubber or plastics.

No exact correlation between the accelerated test and natural life of coated fabrics is given or implied, since the rate of deterioration during the normal life of coated fabrics varies widely, depending on the condition of exposure to heat, light and air and on the composition of the coated fabric. This accelerated test is comparative only, and must be evaluated against the performance of coated fabrics of which both the natural and accelerated ageing characterictics are known.

2 REFERENCES

ISO 188, *Rubber, vulcanized — Accelerated ageing or heat-resistance tests.*

ISO 2231, *Fabric coated with rubber or plastics — Standard atmospheres for conditioning and testing.*

3 TIME-LAPSE BETWEEN MANUFACTURING AND TESTING

3.1 For all purposes, the minimum time between manufacturing and testing shall be 16 h.

3.2 For non-product tests, the maximum time between manufacturing and testing shall be 4 weeks, and for evaluations intended to be comparable, the tests, as far as possible, should be carried out after the same time-interval.

3.3 For product tests, whenever possible, the time between manufacturing and testing should not exceed 3 months. In other cases, tests shall be made within 2 months of the date of receipt by the customer.

4 APPARATUS

Except as otherwise specified, the apparatus shall conform to the requirements of ISO 188.

5 TEST PIECES

5.1 Test pieces shall be taken at not less than 0,10 m from the selvedge and not less than 1 m from the end of the roll or pieces.

5.2 Test pieces for measuring the deterioration of coated fabrics after ageing shall be prepared in accordance with the relevant International Standard for such properties as breaking strength, tear strength, burst strength or other desired physical property.

5.3 For ascertaining the degree of stiffness, softness, decomposition, discoloration, odour, or embrittlement, test pieces not less than 100 mm × 50 mm shall be used for the oven method and test pieces not less than 75 mm × 25 mm shall be used for the oxygen pressure method.

5.4 The material used for identifying the test pieces shall not injure the test pieces or become destroyed during ageing.