SLOVENSKI STANDARD
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Gumirane ali plastificirane tekstilije - Preskusi pospešenega staranja - 2. del: Naravno staranje: uļinek svetlobe ali atmosferskih razmer

Rubber- or plastic-coated fabrics - Accelerated ageing tests - Part 2: Physical ageing: effect of light or weathering

Mit Kautschuk oder Kunststoff beschichtete Textilien - Beschleunigte Alterungsprüfungen - Teil 2: Physikalische Alterung: Einwirkung von Licht oder Bewitterung

Supports textiles revetus de caoutchouc ou de plastique - Essais de vieillissement accéléré - Partie 2: Vieillissement physique: effet de la lumiere ou des intempéries

Ta slovenski standard je istoveten z: **EN 12280-2:2002**

ICS:

59.080.40	Povrġinsko prevleļene tekstilije	Coated fabrics

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English version

Rubber- or plastic-coated fabrics - Accelerated ageing tests - Part 2: Physical ageing: effect of light or weathering

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This European Standard was approved by CEN on 17 May 2002.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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Contents

Foreword

This document EN 12280-2:2002 has been prepared by Technical Committee CEN/TC 248 "Textiles and textile products", the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2003, and conflicting national standards shall be withdrawn at the latest by February 2003.

This European Standard EN 12280 "Rubber- or plastic-coated fabrics - Accelerated ageing tests" consists of the following parts:

Part 1: Heat ageing

Part 2: Physical ageing: effect of light or weathering

Part 3: Environmental ageing

This Part includes one informative annex A.

Consideration is being given to preparing further parts, to cover such processes as biochemical ageing.

WARNING: Persons using this standard should be familiar with normal laboratory practice. This standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

Ageing refers to all "slow and irreversible" changes in the properties of a material resulting from its own instability, or from the effects of the environment. This alteration can affect the chemical structure of the polymers or additives, the composition of the material, or its physical properties.

NOTE Combustion is not considered to be an ageing process, as the deterioration happens very rapidly.

Accelerated ageing methods are used as it is practically impossible to obtain experimental results under normal conditions of utilisation.

These methods involve simulations which reproduce the normal conditions of utilisation as closely as possible, but where the parameters are set so that ageing occurs more rapidly.

This standard deals solely with accelerated ageing methods.

1 Scope

This European Standard specifies a method for the determination of light or weathering accelerated ageing effects on physical properties of coated fabrics. Colour fastness to light or weathering is not dealt with by this standard.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any publications apply to this European Standard only when incorporated in it by amendment or revision. For undated reference, the latest edition of the publication referred to applies (including amendments).

EN ISO 2231, *Rubber- or plastic-coated fabrics — Standard atmospheres for conditioning and testing (ISO 2231:1989).*

EN ISO 2286-1, *Rubber- or plastic-coated fabrics — Determination of roll characteristics — Part 1: Methods for determination of length, width and net mass (ISO 2286-1:1998).*

EN ISO 105-B02, *Textiles — Tests for colour fastness — Part B02: Colour fastness to artificial light: Xenon arc fading lamp test (ISO 105-B02:1994, including Amendment 1:1998).*

EN ISO 105-B04, *Textiles — Tests for colour fastness — Part B04: Colour fastness to artificial weathering: Xenon arc fading lamp test (ISO 105-B04:1994).*

3 Principle

Samples of coated fabrics are exposed in standard conditions of light or weathering according to EN ISO 105-B02 or EN ISO 105-B04 conditions. Physical properties of coated fabrics are evaluated on exposed and not exposed samples.

4 Apparatus

The testing machine shall conform to requirements of EN ISO 105-B02 or EN ISO 105-B04.

5 Test specimens

5.1 Sampling

Test specimens shall be cut from an area with no functional or visible flaws and shall be located within the full length of the coated fabric and its usable width as defined in EN ISO 2286-1.

5.2 Preparation

The minimum required dimensions are: (145 × 75) mm, thickness depending on the coated fabric.

5.3 Number

At least 3 test specimens shall be used for each test before ageing and at least three test specimens after ageing. In case of dispute, the minimum number of test specimens shall be that specified by the standard relevant to the physical property tested.

Tests after exposure shall be carried out on the exposed area only. Exposed test specimens shall be conditioned according to EN ISO 2231 prior to test for at least 24 hours.

6 Test conditions

Place the test specimens in the appropriate apparatus, and carry out the ageing according to EN ISO 105-B02 or EN ISO 105-B04 specifications. The temperature of the black panel may be 45 °C to 60 °C. The ageing duration is defined by the parties.

NOTE Exposure to light composed principally of U.V. rays is not considered as an artificial weathering ageing but UV exposure can be found useful for quality control purposes.

7 Expression of results

The influence of ageing on the properties of the coated fabric is determined:

by a variation of those properties;

by comparison with a specified value.

8 Test report

The test report shall include the following particulars:

a) a reference to this European Standard;

b) the date of test;

c) the conditioning and testing atmosphere;

d) the identification of the coated fabric;

e) the conditions of exposure used, and particularly the temperature of the black panel;

f) the exposure period;

g) appearance of the test specimens after exposure;

h) the number of test specimens tested before and after exposure, if different from 3;

i) the properties measured and the values before and after exposure, or their percentage change;

j) any deviation from the procedure, either for the exposure or for the determination of the physical properties.