

**Tekstiil. Värvipüsivuse katsetamine.  
Osa X02: Värvipüsivus  
karboniseerimise toimele: Väävelhape**

Textiles - Tests for colour fastness - Part X02:  
Colour fastness to carbonizing: Sulphuric acid

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 105-X02:2000 sisaldab Euroopa standardi EN ISO 105-X02:1995 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 11.01.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 105-X02:2000 consists of the English text of the European standard EN ISO 105-X02:1995.</p> <p>This document is endorsed on 11.01.2000 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
--	---

<p><b>Käsitlusala:</b></p> <p>See standard määrab kindlaks meetodi kõigi tekstiilivormide värvipüsivuse määramiseks taimsete lisandite eemaldamisel ette nähtud töötlemistoimingute suhtes, mida tehakse kõrgetel temperatuuridel väävelhappega töödeldes. Meetod on rakendatav villa ja villasisaldusega tekstiili puhul.</p>	<p><b>Scope:</b></p>
--	----------------------

**ICS** 59.080.01

**Võtmesõnad:** katsed, määramine, söestamiskatsed, tekstiil, värvid, värvipüsivus

ICS 59.080.10

Descriptors: Textiles, colour fastness, testing, carbonization, sulfuric acid.

**English version**

**Textiles**

**Tests for colour fastness**

**Part X02: Colour fastness to carbonizing: Sulfuric acid  
(ISO 105-X02:1993)**

Textiles; essais de solidité des teintures.  
Partie X02: Solidité des teintures au  
carbonisage: Acide sulfurique  
(ISO 105-X02:1993)

Textilien; Farbechtheitsprüfungen.  
Teil X02: Farbechtheit gegen das Karbo-  
nisieren: Schwefelsäure  
(ISO 105-X02:1993)

This European Standard was approved by CEN on 1995-07-28 and is identical to the ISO Standard as referred to.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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 Central Secretariat has the same status as the official versions.

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

**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

**Central Secretariat: rue de Stassart 36, B-1050 Brussels**

## Foreword

International Standard

ISO 105-X02:1993 Textiles; tests for colour fastness; colour fastness to carbonizing: Sulfuric acid, which was prepared by ISO/TC 38 'Textiles' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 248 'Textiles and textile products' as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by May 1996 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard:

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

## Endorsement notice

The text of the International Standard ISO 105-X02:1993 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative).

## 1 Scope

This part of ISO 105 specifies a method for determining the resistance of the colour of textiles in all forms to the manufacturing operation designed to remove vegetable impurities by treatment with sulfuric acid at high temperatures. The method is mainly applicable to wool and textiles containing wool.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 105. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 105 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 105-A01:1989, *Textiles — Tests for colour fastness — Part A01: General principles of testing*.

ISO 105-A02:1993, *Textiles — Tests for colour fastness — Part A02: Grey scale for assessing change in colour*.

## 3 Principle

A specimen impregnated with sulfuric acid solution is dried, baked, rinsed and neutralized. The changes in colour after rinsing, neutralizing and drying are assessed with the grey scale.

## 4 Apparatus and materials

**4.1 Oven**, for drying specimens in air at  $60\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$  and baking in air at  $105\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ .

**4.2 Sulfuric acid solution**, containing 50 g of concentrated sulfuric acid ( $\rho$  1,84 g/ml) per litre.

**4.3 Sodium carbonate solution**, containing 2 g of anhydrous sodium carbonate per litre.

**4.4 Test control**: A dyeing of CI Mordant Red 3 (Colour Index, 3rd Edition) treated with potassium dichromate.

The test control is prepared by entering a well wetted-out pattern of wool cloth at  $40\text{ }^{\circ}\text{C}$  into a dye-bath containing 1 % CI Mordant Red 3 (Colour Index, 3rd Edition), 10 % sodium sulfate decahydrate ( $\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$ ) and 3 % acetic acid (300 g/l), all percentages being calculated on the mass of the pattern, at a liquor ratio of 40:1.

The dye-bath is raised to the boil in 30 min and boiled for a further 30 min. If necessary, the dye-bath is exhausted by careful addition of 1 % to 3 % acetic acid (300 g/l) or 1 % sulfuric acid ( $\rho$  1,84 g/ml), well diluted with water. The bath is boiled for a further 15 min after addition of the acid. The dye-bath is cooled down by addition of cold water, and 0,5 % potassium dichromate dissolved in water is added. The dye-bath is raised to the boil again and boiled for 30 min. The pattern is then removed, rinsed in cold, running tap-water and dried.