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**Textiles — Tests for colour fastness —**

Part B06:

**Colour fastness and ageing to artificial light  
at high temperatures: Xenon arc fading  
lamp test**

AMENDMENT 1

*Textiles — Essais de solidité des teintures —*

*Partie B06: Solidité et vieillissement des teintures à la lumière artificielle à  
hautes températures: Essai avec lampe à arc au xénon*

AMENDEMENT 1



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## Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this Amendment may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

Amendment 1 to International Standard ISO 105-B06:1998 was prepared by Technical Committee ISO/TC 38, *Textiles*, Subcommittee SC 1, *Tests for coloured textiles and colorants*.



# Textiles — Tests for colour fastness —

Part B06:

## Colour fastness and ageing to artificial light at high temperatures: Xenon arc fading lamp test

### AMENDMENT 1

#### 1 Scope

*Page 1, 1st paragraph, 2nd sentence*

Delete the existing text and substitute with the following text:

Of the five different sets of exposure conditions specified (see 6.1), four use D65, and the other one uses a somewhat lower cut-off wavelength.

*2nd paragraph*

Delete the existing text and substitute with following text:

The five different sets of conditions specified are known to give similar but not necessarily identical results.

#### 4 Reference materials and apparatus

##### 4.2.2 Optical light source and filter system

*Page 3, Table 2*

In double column "Set of exposure conditions" change heading in left hand column from 1, 2 and 3 to 1, 2, 3 and 6.

Under "Set of exposure conditions" (1, 2, 3 and 6) the corrected tolerance values are:

400 to 520	32,2 <sup>+3,0</sup> <sub>-5,0</sub>
520 to 640	30,0 ± 3,0

In column "Wavelength", change > 800 to < 800.

**4.2.4.2** Delete the existing title text and substitute:

**Black-panel thermometer (BPT) (for sets of conditions Nos. 5 and 6)**

## 6 Procedure

### 6.1 Exposure conditions

Page 5

Delete existing text and substitute:

Five different sets of exposure conditions are permitted in terms of irradiance, black-standard temperature and test chamber temperature. The specimens and references are exposed under one of the sets of temperature and humidity conditions given in Tables 3, 4 and 5.

Table 3

In triple column "Set of conditions" 3, change the irradiance values as follows:

45 to 60<sup>b</sup> becomes 45 to 162<sup>b</sup>

1,1 to 1,4<sup>c</sup> becomes 1,1 to 3,6<sup>c</sup>

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Insert the following after Table 4

**Table 5 — Exposure conditions set No. 6**

Parameter	Value
Irradiance	162 W/m <sup>2</sup> (± 10 % <sup>a</sup> )
Test-chamber temperature, °C	50 ± 3
Black-panel temperature, °C	89 ± 2
Relative humidity in test chamber, %	50 ± 5
<sup>a</sup> Broad-band measurement at 300 nm to 400 nm.	

#### 6.1.2

Delete the existing text and substitute:

Carry out exposure under sets of conditions 1, 3, 5 and 6 in the non-turning mode, and that under set No. 2 in the turning mode. Interrupt exposure only for inspection purposes, in which case remove the specimen holder concerned from the apparatus.

### 6.2 Setting the exposure conditions for set No. 3

3<sup>rd</sup> paragraph, 2<sup>nd</sup> line.

Change the value from 3,4 ± 0,4 DE\* (CIELAB) to 4,3 ± 0,4 DE\* (CIELAB)

*Last paragraph*

Add the following note:

NOTE  $4,3 \pm 0,4$  DE\* value for blue wool is the equivalent of a  $3,4 \pm 0,4$  DE\* value for the grey scale for assessing the change in colour. In other words, both equal a colour change of grey scale 3.

### 6.3 Exposure methods

*Page 7*

#### 6.3.3

Delete the existing text and substitute with:

Using exclusively set of conditions No. 3 in 6.1, subject to specimens to a prescribed number of exposures in accordance with the specification given in 6.2. Each exposure requires a new reference 6. The minimum specimen size for multiple exposures depends on the subsequent assessment method.

#### 6.3.4

Delete the existing text and substitute with:

Expose the specimens under set of conditions No. 3, 5 or 6 (see 6.1) to a specified level of radiant exposure at a central wavelength of 340 nm, 420 nm or broad-band wavelength of 300 nm to 400 nm. The exact level of radiant exposure will depend on the material and the application, and shall be agreed upon by the interested parties.

*Page 9*

## Annex A

Delete 1st sentence and substitute with:

The five sets of exposure conditions described in 6.1, Tables 3, 4 and 5, are typically achieved in the various testing apparatus as follows. Other filters that will provide the appropriate spectra as defined in Table 2 may also be used.

Inset additional column to the right in the table:

<b>Set of conditions</b>	<b>6</b>
<b>Filer system</b>	BS/SL
<b>Type of apparatus</b>	C

*Page 12*

## Annex C

**C.1.2** Delete the existing text and substitute with:

The xenon arc lamp typically consists of a xenon burner tube, inner glass filter, outer glass filter and the necessary accessories. For colour fastness tests, a borosilicate glass inner filter and a soda-lime glass outer filter are commonly used so that the radiation at the specimen has a spectral cut-off value as defined in Table 2 (for set of conditions No. 5, see Annex D). Other filters may be used providing they meet the relative irradiance and spectral cut-off specified in Table 2 and the use of such filters is reported. Follow manufacturer's instructions for filter

replacement. When applicable, because of transmission change (solorization), outer filters should be discarded after 1 000 h or after 2 000 h dependent on the type of filter used and inner filters should be discarded after 400 h of use or 1 000 h of use dependent on the type of filter used. Because of a drop in intensity with continued use, xenon burners should be discarded when the irradiance, listed in Table 3, 4, 5 or 6 is no longer achievable by automatic control or manual adjustment.

**C.1.3** Delete the existing text and substitute with:

All xenon arc exposure apparatus are equipped with suitable starters, reactance transformers, and indicating and control equipment for either manually or automatically controlling the wattage of the lamp. In manually controlled units, the wattage of the lamp may require periodic adjustment to maintain the irradiance, listed in Tables 3, 4 and 5.

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### **C.3 Monitoring/controlling radiometer**

*2nd paragraph*

Delete the existing text and substitute with:

Single- or multiple-filter radiometers capable of measuring, recording, controlling and/or integrating irradiance with regard to time are satisfactory. A radiometer using a broad-bandpass filter retracting measurement to the UV region (300 nm to 400 nm) is also satisfactory.