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AMENDMENT 1
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Amendment 1

Safety of household and similar electrical appliances –

Part 2-27: Particular requirements for appliances for skin exposure to ultraviolet and infrared radiation

Amendement 1

Sécurité des appareils électrodomestiques et analogues –

Partie 2-27: Règles particulières pour les appareils d'exposition de la peau aux rayonnements ultraviolets et infrarouges

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International Electrotechnical Commission
Telefax: +41 22 919 0300

3, rue de Varembeé Geneva, Switzerland
e-mail: inmail@iec.ch IEC web site <http://www.iec.ch>



Commission Electrotechnique Internationale
International Electrotechnical Commission
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FOREWORD

This amendment has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

The text of this amendment is based on the following documents:

FDIS	Report on voting
61/1760/FDIS	61/1781/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

A bilingual version of this amendment may be issued at a later date.

2 Definitions

2.101 *Delete from the definition:*

disregarding the screening effect of any screen or guard that may enclose it.

2.107 *Replace the definition by:*

effective irradiance

irradiance of electromagnetic radiation weighted according to a specified action spectrum

7 Marking and instructions

7.1 *At the end of the second paragraph, replace "emitter" by "emitters which are recommended for use".*

Replace the text of the second WARNING by:

Ultraviolet radiation may cause injury to the eyes and skin, such as skin ageing and eventually skin cancer.

Read instructions carefully.

Wear the protective goggles provided.

Certain medicines and cosmetics may increase sensitivity.

7.12 *Replace the third dashed item and note 1 by:*

- recommended schedule of exposure specifying duration and intervals taking into account the **UV emitter** characteristics, distances and skin sensitivity.

NOTE 1 The recommended exposure time for the first session for untanned skin is not to be less than 1 min. It is to correspond to a dose not exceeding 100 J/m², weighted according to the UV action spectrum of figure 101, or to the result of a test on a small area of the skin.

In note 2, replace "UV action curve" by "UV action spectrum".

Replace the sixth and seventh dashed items by:

- identification of alternative components which may influence the ultraviolet radiation, such as filters and reflectors;
- identification of replaceable **UV emitters** and a statement that they are only to be replaced by the types marked on the appliance, or an instruction that the replacement of lamps must only be carried out after taking advice from an authorized service agent.

Replace the text of the last bullet by:

- seek medical advice if persistent lumps or sores appear on the skin, or if there are changes in pigmented moles.

11 Heating

11.8 *Delete the modification.*

Add to the addition:

The temperature rises for surfaces in contact with the skin shall not exceed those specified for handles which are continuously held in the hand.

19 Abnormal operation

19.2 *Delete from the first paragraph:*

unless the controls are then inaccessible.

22 Construction

Add the following subclause:

22.109 UV appliances intended to be used by a person lying down shall be constructed so that the emission of ultraviolet radiation is automatically stopped if the timer fails.

Compliance is checked by the following test.

*The appliance is supplied at **rated voltage** and operated under **normal operation**. A fault in the timer is simulated. The emission of ultraviolet radiation shall cease before 1,1 times the set exposure time has elapsed.*

NOTE Appliances having **UV emitters** which are intended to be used when inclined at an angle more than 35° to the vertical are considered to be appliances for use by a person lying down.

23 Internal wiring

23.3 Add the following to the addition:

The number of flexings for conductors flexed in normal use is increased to 50 000.

24 Components

Add:

24.1.4 Addition:

*If the current flowing through the terminals of lampholders or ballasts exceeds the rated value, the terminal shall comply with 15.6 of IEC 60598-1. The current for the test is 1,1 times the current measured when the appliance is operated at **rated voltage**.*

32 Radiation, toxicity and similar hazards

32.101 Add to the second sentence in the third paragraph of the test specification:

"the measuring instrument being positioned so that the highest radiation is recorded."

Add the following note:

NOTE 4 The total **effective irradiance** is given by

$$E = \sum_{250\text{nm}}^{400\text{nm}} S_{\lambda} E_{\lambda} \Delta_{\lambda}$$

where

E is the **effective irradiance**;

S_{λ} is a weighting factor according to figure 101;

E_{λ} is the spectral irradiance in $\text{W/m}^2\text{nm}$;

Δ_{λ} is the bandwidth in nm.

In the penultimate paragraph, replace "UV action curve" by "UV action spectrum"

32.102 Delete the note.

Figure 101

Replace the title by:

UV action spectrum

In note 1, replace "The UV action curve" by "The UV action spectrum".