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

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke -- Teil 2-27: Besondere Anforderungen für Hautbestrahlungsgeräte mit Ultraviolett- und Infrarotstrahlung
(standards.iteh.ai)

Appareils électrodomestiques et analogues - Sécurité -- Partie 2-27: Règles particulières pour les appareils d'exposition de la peau aux rayonnements ultraviolets et infrarouges
SIST EN 60335-2-27:2004/A1:2009
https://standards.iteh.ai/catalog/standards/sist/655e1771-4481-46c7-b40c-4a11655ac2e6/sist-en-60335-2-27:2004/a1:2009

Ta slovenski standard je istoveten z: EN 60335-2-27:2003/A1:2008

ICS:

13.120	Varnost na domu	Domestic safety
97.170	Oprema za nego telesa	Body care equipment

SIST EN 60335-2-27:2004/A1:2009 en,de

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SIST EN 60335-2-27:2004/A1:2009

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60335-2-27/A1

October 2008

ICS 13.120; 97.170

English version

**Household and similar electrical appliances -
Safety -
Part 2-27: Particular requirements for appliances
for skin exposure to ultraviolet and infrared radiation
(IEC 60335-2-27:2002/A1:2004, modified)**

Appareils électrodomestiques
et analogues -
Sécurité -
Partie 2-27: Règles particulières
pour les appareils d'exposition
de la peau aux rayonnements
ultraviolets et infrarouges
(CEI 60335-2-27:2002/A1:2004, modifié)

Sicherheit elektrischer Geräte
für den Hausgebrauch
und ähnliche Zwecke -
Teil 2-27: Besondere Anforderungen
für Hautbestrahlungsgeräte
mit Ultraviolett- und Infrarotstrahlung
(IEC 60335-2-27:2002/A1:2004,
modifiziert)

[SIST EN 60335-2-27:2004/A1:2009](https://standards.iteh.ai/catalog/standards/sist/853ef771-448f-4bc4-b40c-4a4f4ec55edb/sist-en-60335-2-27-2004-a1-2009)

<https://standards.iteh.ai/catalog/standards/sist/853ef771-448f-4bc4-b40c-4a4f4ec55edb/sist-en-60335-2-27-2004-a1-2009>

This amendment A1 modifies the European Standard EN 60335-2-27:2003; it was approved by CENELEC on 2008-10-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 CENELEC member.

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

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

At the Milan meeting of CENELEC TC 61 in November 2004, it was decided to submit amendment 1:2004 to IEC 60335-2-27:2002, prepared by the IEC Technical Committee 61, to the Unique Acceptance Procedure.

A proposal to amend EN 60335-2-27:2003, document CLC/TC 61(SEC)1482, was discussed during the Balsthal meeting of CENELEC TC 61 in June 2004, when it was decided to submit a draft for an amendment to the Unique Acceptance Procedure.

Although both drafts (prA1 & prAA) received sufficient support, CENELEC TC 61 set up an ad hoc WG for adapting the standard to Mandate M/397 received from the European Commission. This ad hoc WG prepared a draft, document CLC/TC 61(SEC)1598, that was discussed during the Málaga meeting of CENELEC TC 61 in June 2007, when it was decided to submit a draft to the formal vote.

The draft was circulated in October 2007 and was approved by CENELEC as amendment A1 to EN 60335-2-27:2003 on 2008-10-01.

The following dates are applicable:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2009-04-01
- date on which the national standards conflicting with the amendment have to be withdrawn (dow) 2009-04-01

Compliance with the provisions of this amendment ensures that the concerns expressed in Commission Opinion 2004/C275/03¹⁾ are met.

There are no special national conditions causing a deviation from this amendment.

There are no national deviations from this amendment, other than those listed in Annex ZB to EN 60335-2-27:2003.

- p NOTE In this document, p is used in the margin to indicate instructions for preparing the printed version.

¹⁾ Commission Opinion of 27 October 2004 within the framework of Council Directive 73/23/EEC relating to electrical equipment designed for use within certain voltage limits — Safety of tanning devices for cosmetic purposes, *Official Journal C 275*, 10/11/2004 P. 0003 – 0005.

Endorsement notice

The text of amendment 1:2004 to the International Standard IEC 60035-2-27:2002 was approved by CENELEC as an amendment to the European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

Contents

- p For Annex BB, replace "(informative)" by "(normative)".

Introduction

Add after the second paragraph:

This standard covers appliances used for intentional tanning. Irradiance limit values are not to be used as safety guidelines for non-intentional UV-exposure.

3 Definitions

Add the following new definition:

3.Z101

minimal erythema dose (MED) (standards.iteh.ai)

the minimal amount of UV radiation exposure required to cause perceptible reddening of the skin

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6 Classification <https://standards.iteh.ai/catalog/standards/sist/853ef771-448f-4bc4-b40c-4a4f4ec55edb/sist-en-60335-2-27-2004-a1-2009>

- p Ignore the replacement of Subclause 6.101.

7 Marking and instructions

- p **7.1** Ignore the replacement of the first paragraph, including Note 101.
- p Ignore the deletion of the fourth paragraph.
- p **7.6** Ignore the addition of Subclause 7.6.
- p **7.12** Replace all of the instructions in IEC 60335-2-27/A1 regarding this subclause by:

Replace the first dashed item by the following:

- a statement that UV appliances are not to be used by:
 - persons under the age of 18 years,
 - persons suffering from sunburn,
 - persons not able to tan at all or not able to tan without burning when exposed to the sun,
 - persons who burn easily when exposed to the sun,
 - persons who tend to freckle,

- persons having more than 20 moles of any size on the body,
- persons having atypical moles (atypical moles are defined as asymmetrical moles larger than 5 mm in diameter with variable pigmentation and irregular borders; in case of doubt, seek medical advice),
- persons suffering from or previously suffering from skin cancer or predisposed to skin cancer,
- persons with a family history of melanoma;

Add the following new items after the first dashed item:

- a statement that exposures should not exceed a person's **minimal erythema dose (MED)**. If erythema (skin reddening) appears hours after any exposure, further exposure should cease. After one week, exposures could be restarted from the beginning of the schedule of exposure;
- a statement that UV appliances are not to be used without taking medical advice if unexpected effects, such as itching, occur within 48 h of the first session.

Replace Note 101 by the following:

NOTE 101 The recommended exposure time for the first-test session for untanned skin is to correspond to a dose not exceeding 100 J/m², weighted according to the erythema action spectrum shown in Figure 101, or as a result of a test on a small area of the skin. Otherwise sunbed exposure should be at least 10 min.

Replace Note 102 by the following:

NOTE 102 As any exposure to UV radiation increases the risk of skin cancer, there is no safe value of maximum yearly dose, but it is recommended not to exceed 25 kJ/m², weighted according to the non-melanoma skin cancer action spectrum shown in Figure 101 and taking into account the recommended schedule of exposure.

- p 7.14 Ignore the addition of Subclause 7.14.

32 Radiation, toxicity and similar hazards

- p 32.101 Replace the first paragraph of the replacement by the following:

Appliances shall not present a toxic or similar hazard. Appliances having **UV emitters** shall not emit radiation having a total **effective irradiance** exceeding 0,3 W/m² weighted according to the erythema action spectrum of Figure 101.

Appliances shall comply with the values specified in Table BB.1.

- p Replace all paragraphs between Note 3 and Note 4 by the following:

Appliances shall have a total irradiance not exceeding 0,003 W/m² for wavelengths between 200 nm and 280 nm and measured by a spectroradiometer between 250 nm and 280 nm.

Annex BB

- p Replace "informative" by "normative".
- p Delete definition BB.1.5.

BB.2 Classification

- p Delete the fifth dash.
- p In the Note, replace ", **UV type 4 appliances** and **UV type 5 appliances**" by "and **UV type 4 appliances**".

BB.3 Effective irradiance

- p Replace the text and Table BB.1 by:

The **effective irradiance** for each type of UV appliance, weighted according to the erythema action spectrum of Figure 101, is given in Table BB.1.

Table BB.1 – Limits of effective irradiance

UV type appliance	Effective irradiance W/m ²	
	250 nm < λ ≤ 320 nm	320 nm < λ < 400 nm
1	< 0,000 5	≥ 0,15
2	0,000 5 to 0,15	≥ 0,15
3	< 0,15	< 0,15
4	≥ 0,15	< 0,15

λ is the wavelength of the radiation

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Bibliography

- p Ignore the replacement of the existing text.

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NORME
INTERNATIONALE
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IEC

60335-2-27

2002

AMENDEMENT 1
AMENDMENT 1
2004-07

Amendement 1

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Sécurité –**

**Partie 2-27:
Règles particulières pour les appareils
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Amendment 1

**Household and similar electrical appliances –
Safety –**

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

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