

BS EN 16489-1:2014



BSI Standards Publication

Professional indoor UV exposure services

Part 1: Requirements for the provision of
training

bsi.

...making excellence a habit.™

National foreword

This British Standard is the UK implementation of EN 16489-1:2014.

The UK participation in its preparation was entrusted to Technical Committee SVS/19/2, Tanning salon services.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2014.
Published by BSI Standards Limited 2014

ISBN 978 0 580 80145 7
ICS 03.080.30

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 April 2014.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

ICS 03.080.30

English Version

**Professional indoor UV exposure services - Part 1:
Requirements for the provision of training**Services professionnels de bronzage en cabine - Partie 1:
Exigences relatives à la formation du personnelProfessionelle Dienstleistungen in Sonnenstudios - Teil 1:
Anforderungen an die Bereitstellung von
Ausbildungsdienstleistungen

This European Standard was approved by CEN on 27 December 2013.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

Contents

Page

Foreword.....	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Learning contents	6
4.1 Theoretical training.....	6
4.1.1 General content.....	6
4.1.2 Specific content	6
4.2 Practical training.....	7
4.2.1 General.....	7
4.2.2 Communication with consumers	8
4.2.3 Safe operation of UV tanning devices	8
4.3 Follow-up training.....	8
5 Assessment of knowledge and skills	8
6 Attestation	8
7 Quality assurance of the training course	9
Annex A (informative) The Fitzpatrick skin-type chart	10
Annex B (informative) A-deviations.....	12
Bibliography	14

Foreword

This document (EN 16489-1:2014) has been prepared by Technical Committee CEN/TC 412 "Project Committee – Indoor sun exposure services", the secretariat of which is held by ASI.

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 October 2014, and conflicting national standards shall be withdrawn at the latest by October 2014.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

EN 16489, *Professional indoor UV exposure services*, consists of three parts:

- Part 1: Requirements for the provision of training;
- Part 2: Required qualification and competence of the indoor UV exposure consultant;
- Part 3: Requirements for the provision of services.

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

Over the years, the quality and safety of indoor tanning devices – without which a tanning facility cannot operate – have improved. This is especially the case since the publication of EN 60335-2-27, which limits the erythemal irradiance to 0,3 W/m².

On the other hand, safe use of commercially offered indoor tanning devices is critically dependent on the way the service is provided. Particularly important is the way in which potential customers are informed about the proper use of tanning devices taking into account the personal characteristics of the consumer. Together with Part 2 [1], this part of EN 16489 contributes to further strengthening consumer information, protection and safety with regard to commercially offered indoor tanning services by defining the requirements for training courses for indoor UV exposure consultants.

1 Scope

Part 1 of EN 16489 specifies the learning contents essential for the training of indoor UV exposure consultants. Part 1 of EN 16489 also specifies the procedures of how the qualification of the trainees shall be provided and assessed.

Requirements for UV appliances for skin exposure are excluded from this European Standard as they fall within the scope of EN 60335-2-27.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 60335-2-27:2013, *Household and similar electrical appliances – Safety – Part 2-27: Particular requirements for appliances for skin exposure to ultraviolet and infrared radiation (IEC 60335-2-27:2009, modified)*

3 Terms and definitions

For the purpose of this document, the following terms and definitions apply.

3.1

tanning

formation and darkening of the melanin pigments in the skin due to UV exposure

3.2

indoor tanning facility

facility where professional indoor tanning via UV devices is offered

3.3

indoor tanning device

device used for indoor UV exposure

3.4

UV appliance

appliance incorporating UV emitters for tanning purposes

3.5

indoor UV exposure consultant

person working for a professional indoor tanning facility and giving information and advice on UV exposure to potential consumers

3.6

trainee

person following a training course to become an indoor UV exposure consultant

3.7

training

process to develop the knowledge, skills and behaviour to meet the requirements of an indoor UV exposure consultant

3.8 qualification

proven ability to meet the requirements of this European Standard in terms of theoretical and practical knowledge necessary to perform the provision of services

4 Learning contents

4.1 Theoretical training

4.1.1 General content

General learning content of the training course shall provide in depth knowledge of the main aspects of

- radiation;
- its impact upon the skin and the eye;
- technical details and safety features of the equipment being used in professional tanning facilities.

Moreover, the course shall provide knowledge of

- responsible operating of UV emitting equipment;
- responsible sunbathing in general;
- maintenance, cleaning and disinfection of indoor tanning devices;
- national legislation and standards.

4.1.2 Specific content

The following specific learning content shall be provided in the theoretical training:

- a) Radiation (natural versus artificially generated UV):
 - different ranges of optical radiation and importance of the spectral distribution;
 - natural sun in comparison with artificially generated radiation of tanning devices;
 - lamp spectral distribution and irradiance as well as irradiance limits of devices as given in EN 60335-2-27;
 - influence of optical components of the UV device on the lamp spectral distribution and irradiance;
- b) structure and functions of the skin and tanning mechanisms;
- c) structure of the eye, effects of UV exposure, and use of eye protection;
- d) UV exposure equipment:
 - various types and functioning of indoor tanning devices;
 - various types and functioning of lamps/ultraviolet emitters;
 - various types and functioning of filters;

- technical requirements and safety features of indoor tanning devices as specified in EN 60335-2-27;
- e) UV exposure and health effects:
 - risk of sunburn and related skin cancer risks by UV exposure;
 - possible phototoxic and/or photo allergic reactions;
 - permanent and temporary damage to the skin and eyes through UV exposure;
 - UV exposure and cosmetics, including perfume and deodorants;
 - UV exposure and medication (for example medication with immunosuppressive or photosensitive effects such as anti-inflammatories);
 - UV exposure effects on tattoos and scars;
 - polymorphic light eruption (PLE, also known as sun allergy);
 - unintentional UV exposure;
 - other negative effects of UV exposure;
 - risks of indoor UV exposure to pregnant women;
 - possible benefits of moderate UV exposure;
- f) responsible indoor UV exposure:
 - minimum erythral dose and standard erythral dose;
 - how to determine a skin type, for example, via a questionnaire or special equipment;
 - how to determine an individual exposure schedule (tanning programme);
 - understand the precautions given in EN 60335-2-27 before indoor UV exposure is taken.

NOTE The guidelines for the development of an exposure schedule are already stated in EN 60335-2-27:2013, Annex DD (informative).

- g) hygiene:
 - scheme for disinfection under consideration of the instructions for use of the disinfectant (e.g. dilution and effective time of action);
 - scheme for cleaning; manual on how to clean the different surfaces.

Cleaning and disinfection may only be done with cleaning agents developed for the specific area (UV exposure device, floors, toilets, other surfaces).

- h) communication skills on how to advise the customer, including rejection.

4.2 Practical training

4.2.1 General

The following learning content shall be provided in the practical training.

4.2.2 Communication with consumers

The practical training shall include communication skills for

- providing tanning advice to the consumer at a tanning facility;
- warning consumers about excessive tanning and the resulting possible health risks;
- giving personal tanning advice based on the skin type and the tanning history of the individual consumer in combination with the tanning programme;
- encouraging the consumer to ask questions about the individual tanning programme or tanning related subjects.

4.2.3 Safe operation of UV tanning devices

The practical training shall include the following tasks:

- practical operation of safety features of indoor tanning devices;
- emergency measures according to local regulations and laws.

4.3 Follow-up training

A follow-up training is required in case of substantial amendments of this European Standard or at least every 5 years.

5 Assessment of knowledge and skills

The knowledge and skills acquired in the theoretical and practical training shall be assessed in a multiple-choice test.

The test shall comprise at least 5 in depth questions to each of the 8 subsections under 4.1.2. above and be regarded as successful if the trainee attains a minimum of 60 % of the questions in all the subsections and a total of 70 % overall.

The following model question illustrates the “in depth” level:

“Which part of the UV radiation does not pass the ozone layer?”

The practical examination shall assess if the candidates can apply and communicate their knowledge and skills attained in the training course in practice.

6 Attestation

The trainee who has successfully passed the theoretical test and the practical training shall receive an attestation by the training provider specifying that the training complies with this European Standard.

The provider may award the title “European Certified UV Exposure Consultant” to successful participants, if the course has been certified.

7 Quality assurance of the training course

- a) The provider shall engage qualified trainers who have substantial knowledge on operating indoor UV exposure devices (UV appliances).
- b) The provider shall provide learning contents for the theoretical training in written form.
- c) The provider shall keep comprehensive records for at least 10 years. Such records shall include
 - name and legal address / identification of the participants;
 - date and location of the theoretical examination;
 - original multiple choice test signed by a trainer who supervised the examination;
 - date and location of the practical examination;
- d) The provider should have the training course certified by an acknowledged third-party certifier.

Annex A (informative)

The Fitzpatrick skin-type chart

This skin-type chart ¹⁾ can be used for self-assessment, by adding up the score for each of the questions one has answered. At the end, there is a scale providing a range for each of the six skin-type categories. Following the scale is an explanation of each of the skin types. The skin type of someone can be quickly and easily determined.

Table A.1 — Genetic disposition

Score	0	1	2	3	4
What is the colour of your eyes?	Light blue, Grey, Green	Blue, Grey or Green	Blue	Dark Brown	Brownish Black
What is the natural colour of your hair?	Sandy Red	Blond	Chestnut/ Dark Blond	Dark Brown	Black
What is the colour of your skin (non-exposed areas)?	Reddish	Very Pale	Pale with Beige tint	Light Brown	Dark Brown
Do you have freckles on unexposed areas?	Many	Several	Few	Incidental	none

Total score for genetic disposition: _____

Table A.2 — Reaction to sun exposure

Score	0	1	2	3	4
What happens when you stay in the sun too long?	Painful redness, blistering, peeling	Blistering followed by peeling	Burns sometimes followed by peeling	Rare burns	Never had burns
To What degree do you turn brown?	Hardly or not at all	Light colour tan	Reasonable tan	Tan very easy	Turn dark brown quickly
Do you turn brown within several hours after sun exposure?	Never	Seldom	Sometimes	Often	Always
How does your face react to the sun?	Very sensitive	Sensitive	Normal	Very resistant	Never had a problem

Total score for reaction to sun exposure: _____

1) Developed by Thomas B. Fitzpatrick, MD, PhD, of Harvard Medical School in 1975 [2].

Table A.3 — Tanning habits

Score	0	1	2	3	4
When did you last expose your body to sun (or UV sunlamp/tanning cream)?	More than 3 months ago	2–3 months ago	1–2 months ago	Less than a month ago	Less than 2 weeks ago
Did you expose the area to be treated to the sun?	Never	Hardly ever	Sometimes	Often	Always

Total score for tanning habits: _____

Add up the total scores for each of the three sections for your skin-type score.

Table A.4 — Skin type score – Fitzpatrick skin-types

Score	Skin-types
0 - 7	I
8 - 16	II
17 - 25	III
25 - 30	IV
over 30	V - VI

Type I: Highly sensitive, always burns, never tans.

EXAMPLE 1 Red hair with freckles

Type II: Very sun sensitive, burns easily, tans minimally.

EXAMPLE 2 Fair skinned, fair haired Caucasians

Type III: Sun sensitive skin, sometimes burns, slowly tans to light brown.

EXAMPLE 3 Darker Caucasians.

Type IV: Minimally sun sensitive, burns minimally, always tans to moderate brown.

EXAMPLE 4 Mediterranean type Caucasians, some Hispanics.

Type V: Sun insensitive skin, rarely burns, tans well.

EXAMPLE 5 Some Hispanics, some Blacks

Type VI: Sun insensitive, never burns, deeply pigmented.

EXAMPLE 6 Darker Blacks.

Annex B (informative)

A-deviations

A-deviation: National deviation due to regulations, the alteration of which is for the time being outside the competence of the CEN/CENELEC member.

This European Standard does not fall under any Directive of the EC.

In the relevant CEN/CENELEC countries these A-deviations are valid instead of the provisions of the European Standard until they have been removed.

Deviation	
Country	National Regulation
France	<p>Décret n° 97–617 du 30 mai 1997 relatif à la vente et à la mise à disposition du public de certains appareils de bronzage utilisant des rayonnements ultraviolets.</p> <p>French decree regarding indoor UV exposure devices made available to the public.</p> <p>Concerning the designation of “benefits”</p>
<p>Clause 4.1.2 Specific content</p> <p>e) possible benefits of moderate UV exposure</p> <p>This designation is in conflict with article 12 of the French decree</p>	<p>Article 12 du décret n° 97–617 du 30 mai 1997 states: « Il ne peut en aucun cas être fait référence à un effet bénéfique pour la santé. »</p> <p>Under no circumstances, can reference be made to any health benefits of indoor UV exposure.</p>
Germany	<p>UV-Schutz-Verordnung –UVSV (ultraviolet radiation protection ordinance) dop:2011–07–20 (BGBl. I S. 1412)</p>
<p>Clause 4</p> <p>Learning contents</p>	<p>Annex 6 to paragraph 5 subclause 1</p> <p>In this regulation a weighting of the learning contents is given.</p>
<p>subclause 4.3</p> <p>Follow-up training</p> <p>“A follow-up training is required in case of substantial amendments of this European Standard or at least every 5 years.”</p>	<p>paragraph 5 subclause 2</p> <p>The regulation requires a minimum period of 5 h for follow-up training.</p>
<p>Clause 7</p> <p>Quality assurance of the training course</p>	<p>paragraph 5 subclause 1</p> <p>The regulation requires a minimum period of 12 h for training.</p>
<p>Clause 7 subclause a)</p> <p>The provider shall engage qualified trainers who have substantial knowledge on operating indoor sun exposure devices (UV appliances).</p>	<p>paragraph 5 subclause 4</p> <p>According to this regulation, the provider shall be an accredited authority. The requirements for accreditation are defined in the regulation.</p>

<p>Clause 7 subclause d) The provider should have the training course certified by an acknowledged third-party certifier.</p>	<p>paragraph 5 subclause 4 According to this regulation, the provider shall be an accredited authority. The requirements for accreditation are defined in the regulation.</p>
---	---

Bibliography

- [1] EN 16489-2 ²⁾, *Professional indoor UV exposure services – Part 2: Required qualification and competence of the indoor UV exposure consultant*
- [2] FITZPATRICK T.B. Soleil et peau. *Journal de Médecine Esthétique*. 1975, **2** pp. 33–34

2) In preparation.

British Standards Institution (BSI)

BSI is the national body responsible for preparing British Standards and other standards-related publications, information and services.

BSI is incorporated by Royal Charter. British Standards and other standardization products are published by BSI Standards Limited.

About us

We bring together business, industry, government, consumers, innovators and others to shape their combined experience and expertise into standards-based solutions.

The knowledge embodied in our standards has been carefully assembled in a dependable format and refined through our open consultation process. Organizations of all sizes and across all sectors choose standards to help them achieve their goals.

Information on standards

We can provide you with the knowledge that your organization needs to succeed. Find out more about British Standards by visiting our website at bsigroup.com/standards or contacting our Customer Services team or Knowledge Centre.

Buying standards

You can buy and download PDF versions of BSI publications, including British and adopted European and international standards, through our website at bsigroup.com/shop, where hard copies can also be purchased.

If you need international and foreign standards from other Standards Development Organizations, hard copies can be ordered from our Customer Services team.

Subscriptions

Our range of subscription services are designed to make using standards easier for you. For further information on our subscription products go to bsigroup.com/subscriptions.

With **British Standards Online (BSOL)** you'll have instant access to over 55,000 British and adopted European and international standards from your desktop. It's available 24/7 and is refreshed daily so you'll always be up to date.

You can keep in touch with standards developments and receive substantial discounts on the purchase price of standards, both in single copy and subscription format, by becoming a **BSI Subscribing Member**.

PLUS is an updating service exclusive to BSI Subscribing Members. You will automatically receive the latest hard copy of your standards when they're revised or replaced.

To find out more about becoming a BSI Subscribing Member and the benefits of membership, please visit bsigroup.com/shop.

With a **Multi-User Network Licence (MUNL)** you are able to host standards publications on your intranet. Licences can cover as few or as many users as you wish. With updates supplied as soon as they're available, you can be sure your documentation is current. For further information, email bsmusales@bsigroup.com.

BSI Group Headquarters

389 Chiswick High Road London W4 4AL UK

Revisions

Our British Standards and other publications are updated by amendment or revision.

We continually improve the quality of our products and services to benefit your business. If you find an inaccuracy or ambiguity within a British Standard or other BSI publication please inform the Knowledge Centre.

Copyright

All the data, software and documentation set out in all British Standards and other BSI publications are the property of and copyrighted by BSI, or some person or entity that owns copyright in the information used (such as the international standardization bodies) and has formally licensed such information to BSI for commercial publication and use. Except as permitted under the Copyright, Designs and Patents Act 1988 no extract may be reproduced, stored in a retrieval system or transmitted in any form or by any means – electronic, photocopying, recording or otherwise – without prior written permission from BSI. Details and advice can be obtained from the Copyright & Licensing Department.

Useful Contacts:

Customer Services

Tel: +44 845 086 9001

Email (orders): orders@bsigroup.com

Email (enquiries): cservices@bsigroup.com

Subscriptions

Tel: +44 845 086 9001

Email: subscriptions@bsigroup.com

Knowledge Centre

Tel: +44 20 8996 7004

Email: knowledgecentre@bsigroup.com

Copyright & Licensing

Tel: +44 20 8996 7070

Email: copyright@bsigroup.com



...making excellence a habit.™