

CENELEC

CLC/TC 61(SEC) XXXX August 2017

Belgian Royal decree defining the conditions for the operating of tanning salons

Comments from the CENELEC TC61 Issue manager for "EN 60335-2-27 Household and similar electrical appliances – Safety: Particular requirements for appliances for skin exposure to ultraviolet and infrared radiation"

Unfortunately the requirements given in this Royal Decree conflict with definitions, concepts and requirements of the harmonized, listed standard (EN60335-2-27) for the products used in tanning salons.

Therefore it would be partly impossible to fulfill the requirements set by this decree for tanning salons, which are required to use only legally marketed UV appliances.

The Belgian authorities should amend the decree to make it possible to use legal European products in conjunction with the decree.

In detail the conflicts are:

1. Chapter 1: Definitions and scope

Article 1.

7° skin type: the individual ultraviolet radiation sensitivity of the skin as a measure of the skin's response to ultraviolet radiation;

This definition is incorrect. <u>Skin type</u> is defined by the response of untanned skin to UV exposure and is a fixed parameter of the individual. The current definition in the decree is describing the <u>UV sensitivity</u>, which is dependent on the degree of pre-tanning of the individual and would therefore change during the tanning sessions.

2. Chapter 3: Information

Article 7.

In each room where a tanning bed is installed, clear instructions for safe use and cleaning of the tanning beds shall be affixed, as well as the manufacturer's exposure diagram with specifications for tanning duration and intervals according to the features of the tanning bed and consumer skin type.

This requirement is obviously based on an old concept of UV exposure, which should not be used anymore and creates conflicts with the existing standards.

In the past exposure schedules were purely based on the desire to avoid sunburns. Since the sunburn threshold is different for each skin type, darker skin types were getting higher doses. In 2008 a study performed by the FDA showed that darker skin types need less UV exposure to develop a tan than lighter skin types. It is not necessary to go up to the sunburn threshold. The current approach therefore is to give doses for a good tan to every skin type, but to avoid sunburns for the lightest skin type (II) at the same time. This results in general lower UV doses for most users, while still leading to the desired tanning result.

As a consequence of this new approach the exposure schedule has been changed by the standardization bodies and, as defined in EN60335-2-27:2013, does not contain any skin type related exposure doses or times anymore. It simply requires excluding skin type I ("always burn, never tan") from the use of the sunbeds.

Therefore any differentiation between consumer skin types in the room where a tanning bed is installed is not possible with the products brought into the market in accordance with this standard. Consumers with skin type I are already identified and excluded from tanning at the counter of the tanning salon and will therefore not enter the mentioned room at all.

To make this crystal clear: With EN60335-2-27:2013 there are no differences between the skin types concerning exposure. So any determination of skin types is meaningless when using products based on this standard.

The one and only provision should be to exclude skin type I.This is easy to determine at the counter of a tanning studio by two questions:1. Can you withstand the summer sun without burning?2. Do you tan?If both answers are "No" the consumer is skin type I and not allowed to use sunbeds!

There is absolutely no reason to determine skin types other than I to get the correct exposure dose with sunbeds following EN60335-2-27:2013, as they will all get the same exposure.

3. Chapter 5: Layout of tanning salons

Article 17. The radiation released from tanning beds shall not exceed a total effective erythemally weighted irradiance of $0.3 W/m^2$ at any point in space.

The product standard EN60335-2-27 gives clear indication at which points in space the total effective erythemally weighted irradiance of a tanning bed is measured. These points in space model the human body (with cylinders) while using the tanning bed or, if no specific location for the user is given, requires to measure at the emitting surface. Measurements by authorities "at any point in space" might lead to results different from the measurements performed during the type-testing used for the declaration of conformity.

4. Chapter 5: layout of tanning salons

Article 18.

As described in 2. a differentiation by skin type is not possible and not needed with the legally marketed tanning beds following EN60335-2-27:2013.

^{2°} the intensity and duration of exposure are controlled automatically based on the consumer's skin type after reading the personal means of identification and taking account of the features of the tanning bed and the lamps used;

3° after the personal means of identification has been read, the initial exposure of a session shall be only half the normal dose;

The initial dose of a session is already defined in the product standard and provides a test dose of 100 J/m^2 erythemally weighted dose. This dose is used to identify any side effect of UV radiation on the specific consumer. A waiting time of 48 hours to see if side effects will occur is required as well. The decree requirement of 'half the normal dose' is unnecessary due to the standard requirement and not possible to determine, since 'normal dose' is not defined.

4° after the personal means of identification has been read, the first and second exposures of a session shall be at least 48 hours apart, and any subsequent exposures shall be at least 24 hours apart;

This requirement is in contradiction to EN60335-2-27, which requires a 48 hour waiting period between each subsequent exposure. Not only between first and second exposure.

5° the tanning bed shall be automatically disabled when the manufacturer's technical instructions indicate that the ultraviolet lamps or other parts need to be replaced;

Such an automatic disable function is not required by the standard for the tanning bed itself. Furthermore the irradiance from all emitters and optical parts decreases with their age. Therefore the exposure from the tanning bed falls more and more to the safe side.

To fulfil this unnecessary requirement of the decree, the external control system would have to intervene. This would require communication and exchange of parameters between the tanning bed and the control system, which is not the case in the current tanning beds. We are therefore talking about additional technical requirements for a legally marketed product. The desired level of safety can easily be achieved by a maintenance and incidence report book as used in other European countries.

6° the tanning bed shall be automatically disabled in case of any malfunction.

This is an additional technical requirement far beyond standard requirements. Furthermore the term 'malfunction' is not defined. E.g. a broken plastic cover with sharp edges on the outer side of the tanning bed is for sure a malfunction and needs to be repaired, but it is nearly impossible to be detectable automatically to disable the tanning bed.

If the Belgian authorities would like to discuss our comments, the signing persons would be grateful to bring in the view of the standardization bodies.

Respectfully,

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