SLOVENSKI STANDARD
SIST EN 16780:2018

01-oktober-2018

Tekstilni izdelki za otroke - Varnostne zahteve in preskusne metode za ščitnike za otroško posteljico

Textile child care articles - Safety requirements and test methods for children's cot bumpers

Textile Artikel für Kleinkinder und Säuglinge - Sicherheitstechnische Anforderungen und Prüfverfahren für Kinderbettnestchen

Articles textiles de puériculture - Exigences de sécurité et méthodes d'essais pour les tours de lit d'enfants

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97.160	Tekstilije za dom. Perilo	Home textiles. Linen
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Textile child care articles - Safety requirements and test methods for children's cot bumpers

Articles textiles de puériculture - Exigences de sécurité et méthodes d'essai pour les tours de lit à nacelle

Textile Artikel für Kleinkinder und Säuglinge - Sicherheitstechnische Anforderungen und Prüfverfahren für Kinderbettnestchen

This European Standard was approved by CEN on 8 February 2018.

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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.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 16780:2018) has been prepared by Technical Committee CEN/TC 248 “Textiles and textile products”, the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by February 2019, and conflicting national standards shall be withdrawn at the latest by February 2019.

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

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

Following the publication and implementation of this document in CEN member countries, it has been agreed by CEN TC 248 that there should be an 18 month transition period from the date of availability to allow manufacturers to develop and produce garments that conform to the standard. This period is also to allow the supply chain, from manufacturer through to the consumer, to be cleared of non-conforming children's cot bumpers.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

The European Commission Mandate N° M/497, followed by Product and Service safety in the Directorate-General Health and Consumers, under the title “Standardisation mandate to CEN, CENELEC and ETSI on the safety of child-care articles; Cluster 2- risks in the sleeping environment; Mattresses for cots, cot bumpers, suspended beds for children, duvets for children, sleep bags for children”, issued on 2011-10-20 and accepted by CEN BT on 2011-12-20, requested that CEN develop standards or specifications including safety requirements and test methods, warnings and instructions to adult users in order to address the possible hazard posed by these products.

The aim of this European Standard is to minimize the main risks posed by products in the sleep environment of babies and young children, such as:

— internal asphyxiation (choking);

— entrapment;

— strangulation;

— external asphyxiation (suffocation);

— flammability;

— injuries due to falls;

— injuries due to ingestion of small parts;

— injuries due to chemicals.

For the development of this document, attention was paid to:

— the child’s stages of development (age, height, weight, ability, etc.). Cot bumpers were studied in relation to children up to 3 years of age;

— the intended or foreseeable use of the product, bearing in mind a child’s behaviour. Such behaviour exposes children to injury in ways that differ from those of adults, making children a particularly vulnerable group in society;

— the hazard presented by the product in the circumstances under which the product and the child come into contact with each other.

IMPORTANT — In order to comply with the essential safety requirements, this document is hazard based. As this document only deals with a particular textile child-care article, i.e. cot bumpers, design characteristics have been specified only when necessary in order to introduce inherently safe design. These characteristics have been specified in a manner which allows compliance to be checked by interested parties, from designers to market surveillance authority officers.

1 Scope

This European Standard specifies requirements for the safety of children's cot bumpers used in the children's sleeping environment (i.e. not under supervision) when sleeping in a cot or similar product (e.g. crib/cradle) in which a child is contained.

NOTE The informative Annex C lists topics of further investigation which might lead to necessary improvement of the safety requirements of cot bumpers.

If a part of the children's cot bumpers is designed to offer additional function (e.g. play function), this part will, in addition to the following requirements, be subjected to safety requirements related to relevant standards (see A.1).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 71-1:2014, *Safety of toys - Part 1: Mechanical and physical properties*

EN 71-3:2013+A2:2017, *Safety of toys - Part 3: Migration of certain elements*

EN 1103, *Textiles - Fabrics for apparel - Detailed procedure to determine the burning behaviour*

EN 1162, *Feather and down - Test methods - Determination of the oxygen index number*

EN 1164, *Feather and down - Test methods - Determination of the turbidity of an aqueous extract*

EN 12935, *Feather and down - Hygiene and cleanliness requirements*

EN 16732, *Slide fasteners (zips) - Specification*

EN ISO 105-E01, *Textiles - Tests for colour fastness - Part E01: Colour fastness to water (ISO 105-E01)*

EN ISO 6330, *Textiles - Domestic washing and drying procedures for textile testing (ISO 6330)*

EN ISO 14184-1, *Textiles - Determination of formaldehyde - Part 1: Free and hydrolysed formaldehyde (water extraction method) (ISO 14184-1)*

EN ISO 17226-1, *Leather - Chemical determination of formaldehyde content - Part 1: Method using high performance liquid chromatography (ISO 17226-1)*

ISO 105-F10, *Textiles — Tests for colour fastness — Part F10: Specification for adjacent fabric: Multifibre*

ISO 4915, *Textiles — Stitch types — Classification and terminology*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1
cot bumper
product intended to be attached to the inner vertical surface of one or more cot sides

3.2
cot
bed for a child consisting of a base and enclosed by high sides to prevent the child from falling out

3.3
harm
injury or damage to the health of people

[SOURCE: ISO/IEC Guide 51:2014, 3.1, modified — "or damage to property or the environment" has been deleted.]

3.4
hazard
potential source of *harm* (3.3)

[SOURCE: ISO/IEC Guide 51:2014, 3.2]

3.5
risk
combination of the probability of occurrence of *harm* (3.3) and the severity of that harm

[SOURCE: ISO/IEC Guide 51:2014, 3.9, modified — Note 1 to entry has been deleted.]

3.6
inherently safe design
measures taken to eliminate *hazards* (3.4) and/or to reduce *risks* (3.5) by changing the design or operating characteristics of the product or system

[SOURCE: ISO/IEC Guide 51:2014, 3.5]

3.7
cord
cord, chain, ribbon, string or tape of any textile or non-textile material, including elastic material

3.8
asphyxiation
insufficient supply of air to the airways

Note 1 to entry: Insufficient supply of air could be caused e.g. by closing off the flow of air as a result of choking or suffocation or by entrapment in an unventilated, confined space.

[SOURCE: EN 71-1:2014, 3.3]

3.9
choking
closing off the flow of air as a result of internal *asphyxiation*

Note 1 to entry: Choking can, for example, be caused by inhalation of an object, by an object becoming wedged in the mouth or pharynx, or by an object becoming lodged over the entrance to the lower airways.

[SOURCE: EN 71-1:2014, 3.9]

3.10
suffocation
closing off the flow of air as a result of airway obstruction external to the mouth and nose

[SOURCE: EN 71-1:2014, 3.59]

3.11
monofilament thread
single thread of man-made fibre

3.12
burr
roughness, caused by not cleanly severing or finishing the material

[SOURCE: EN 71-1:2014, 3.6]

3.13
surface flash
rapid spread of flame over the surface of a material without ignition of its basic structure

[SOURCE: ISO 4880:1997 and its note to entry: Note 1 to entry: “However, if the latter occurs simultaneously or sequentially with surface flash, it is not considered as a part of surface flash.”]

3.14
three dimensional embellishment
decorative item attached to a cord that is thicker and/or wider than the cord itself

[SOURCE: EN 14682:2014, 2.21]

3.15
functional cord
cord, chain, ribbon, string or tape, made of any textile or non-textile material including elastic material, which is used to attach the cot bumper to the cot

Note 1 to entry: If a play function is offered, this definition may be extended to cords as described in EN 71-1.

4 Requirements and test methods

NOTE Rationales for the inclusion of some of the requirements given in this document are given in Annex A. Table A.1 summarizes the relation between the design characteristics (4.1) and the hazards (4.2 to 4.5).

4.1 Design characteristics (see A.2)

4.1.1 General

4.1.1.1 Cot bumpers shall be designed or manufactured such that no parts can be used as footholds enabling children to climb on the product and out of the cot.

4.1.1.2 Cot bumpers shall be designed or manufactured such that no horizontal gaps between parts can enable children to entrap their head;

4.1.1.3 The way to attach the cot bumper shall be designed such that the cot bumper cannot collapse or be drawn inside the cot.

4.1.1.4 Cot bumpers shall not have any pockets (see A.2.2).

4.1.2 Fabrics and filling materials

4.1.2.1 Cot bumpers shall not be manufactured with plastic transfer (e.g. plastic print) or coated fabrics or foam (see A.3.4).

4.1.2.2 “Fabrics and filling materials shall not contain any hard, sharp or foreign objects (i.e. any items which are not intended to be present such as needle, staple, nail, unattached press fastener, wood splinter, or insect or other infestation)”

NOTE The test method is referred to in 4.2.4.2.

4.1.3 Functional cords

4.1.3.1 Functional cords shall have no knots or three dimensional embellishments and shall be secured to prevent fraying, for example by heat sealing or bar tacking. The ends may be doubled or folded provided no hazard of entrapment is created.

4.1.3.2 Functional cords intended to be tied together shall be attached to the bumper at the same point.

4.1.3.3 Non-functional cords with free end shall have no more than 75 mm in length (see A.3.2).

4.1.4 Slide fasteners

4.1.4.1 When slide fasteners are used and fastened, they shall be positioned external to the cot.

4.1.4.2 Slide fasteners shall comply with EN 16732, at least the performance requirements of code C and with the requirements of Table 2, as stated in EN 16732:2015.

4.1.4.3 Slide fasteners shall include a top stop (see A.3.3.1) and either a bottom stop or secured in a manner so that the slider cannot be removed from the chain. Claw type stops are not permitted. The presence of the top stop, the bottom stop shall be confirmed by visual inspection.

4.1.4.4 Slide fasteners shall not have a removable slider. The absence of a removable slider shall be confirmed by manual inspection.

4.1.4.5 The top stops and the elements (teeth) shall be free from burrs and sharp edges (see A.3.5.1).

NOTE The test method is referred to in 4.2.4.2.

4.1.5 Touch and close fasteners

4.1.5.1 When touch and close fasteners are used and fastened, they shall be positioned external to the cot (see A.3.5.1).

4.1.5.2 Pieces of touch and close fasteners shall be die cut with rounded corners to reduce the risk of scratching (see A.3.5.1).

4.1.5.3 Adhesive touch and close fasteners (i.e. adhesive part glued to the cot) shall not to be used to attach the cot bumper to the cot (see A.3.4).

4.1.6 Threads (including cot bumpers seams)

4.1.6.1 Single thread chain stitches, as described in ISO 4915, are not permitted (see A.3.1.2).

4.1.6.2 Seams shall have a seam allowance (distance between the fabric edge and sewing line) of no less than 5 mm (see A.3.3.1).

4.1.6.3 Seams shall be sewn so as to meet one of the following conditions (see A.3.1.2, A.3.3.1):

a) a minimum of 10 stitches per 3 cm;

b) if fewer than 10 stitches per 3 cm is used then the seam shall be tested as follows:

Use clamps with jaws to which discs with a diameter of 19 mm are affixed. Attach the clamps not less than 30 mm apart and equidistant to the seam. Gradually apply a force of (70 ± 2) N between the two clamps over a period of approximately 5 s. Maintain the force for 10 s. Apply the test to this seam only once. Determine whether the front part of the 12 mm probe (see Figure 1) can be inserted through any one opening in the seam, using a maximum force of 10 N.

NOTE Decorative stitches and quilting stitches are excluded from this requirement.

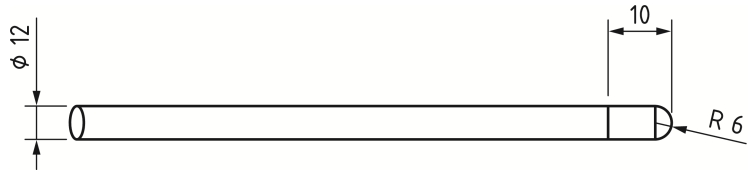

Figure 1 — Test Probe for seams

4.1.6.4 For exposed faces of the article, the maximum length of uncut float threads or uncut stitches shall be 10mm, and the maximum length for cut threads or cut stitches shall be 20 mm (see A.3.1.2).

4.1.6.5 Monofilament threads shall not be used (see A.3.1.2).

4.1.6.6 Buttons shall not be attached by chain stitch.