PD CEN/TR 13387-3:2015

BSI Standards Publication

Child use and care articles — General safety guidelines

Part 3: Mechanical hazards

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National foreword

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The UK participation in its preparation was entrusted to Technical Committee CW/1, Safety of child use and child care products.

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.

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English Version

Child use and care articles - General safety guidelines - Mechanical hazards

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European foreword

This document (CEN/TR 13387-3:2015) has been prepared by Technical Committee CEN/TC 252 “Child use and care articles”, the secretariat of which is held by AFNOR.

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.

This document supersedes CEN/TR 13387:2004.

CEN/TR 13387 comprises the following five parts:

— Part 1: Safety philosophy and safety assessment

— Part 2: Chemical hazards

— Part 3: Mechanical hazards

— Part 4: Thermal hazards

— Part 5: Product information

CEN/TR 13387-3 should be used in conjunction with CEN/TR 13387-1.

This new edition of this Technical Report is a hazard based Technical Report. In comparison with the previous version, the main changes related to the section on Mechanical hazards are:

— Ageing and wear: Reworded;

— Accessibility of mechanical hazards: Reworded;

— Entrapment Hazards: Addition of a new finger probe and a hip probe;

— Hazards from moving parts: Moving parts separated into two main areas;

— Entanglement hazards: Improvement of the diagram for the ball and chain test; clarification of the clause for “Cords, ribbons and parts used as ties;

— Suffocation hazards: Clarification of the clause for “Non air-permeable packaging”;

— Hazardous edges and projections: Drawings deleted;

— Protective function: Addition of a hip probe;

— Footholds: Reworded.

1 Scope

This Technical Report provides guidance information on mechnical hazards that should be taken into consideration when developing safety standards for child use and care articles. In addition, these guidelines can assist those with a general professional interest in child safety.

2 Mechanical hazards - Safety philosophy

This clause addresses the most widely known mechanical hazards and is intended to provide guidance when drafting standards for child use and care articles.

Anthropometric data and information on the abilities of children related to risks are given in Annex A of CEN/TR 13387-1:2015. When using these data for setting requirements, adequate safety margins should be considered. These data refer to static and not dynamic anthropometric data, therefore care should be taken if using these data for anything other than static situations when drafting standards.

When drafting standards, conditions of use should be considered, bearing in mind the behaviour of children. Also, it is to be considered whether the child is attended or unattended when using the product and also the child's access to hazardous features.

For each mechanical hazard a rationale is given, explaining the potential hazard to the child. Requirements, test equipment and test methods are also given. Where appropriate, these can be used when drafting standards.

3 Terms and definitions

For the purposes of this document, the following terms and definitions related to mechanical hazards apply.

3.1
mechanical hazards
physical factors which may give rise to injury due to the mechanical properties of products/product parts

3.2
reach envelopes
age related physical data on the reach limits of the limbs of children in different postures, see 4.2

3.3
ageing
change of properties of the material due to exposure to environmental factors such as temperature, humidity, UV radiation, cleaning agents etc.

3.4
mechanical wear
change of mechanical properties due to fatigue or repeated operation of devices, mechanisms and other parts of the product

4 Accessibility of mechanical hazards

4.1 General

Within the mechanical section no reference is made to specific areas of access, known as access zones. It would be wrong for this guidance document to specify exact areas of access as these should be determined in relation to the hazards and risks of individual products and risks when drafting the standard. As a general guidance to the types of contact associated with mechanical hazards, the following examples are given: