



**NSAI**  
Standards

Irish Standard Recommendation  
S.R. CEN/TR 13387-3:2015

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

**S.R. CEN/TR 13387-3:2015**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

*This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):*

*NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.*

*This document is based on:*

CEN/TR 13387-3:2015

*Published:*

2015-07-01

*This document was published under the authority of the NSAI and comes into effect on:*

2015-07-18

ICS number:

97.190

NOTE: If blank see CEN/CENELEC cover page

NSAI  
1 Swift Square,  
Northwood, Santry  
Dublin 9

T +353 1 807 3800  
F +353 1 807 3838  
E standards@nsai.ie  
W NSAI.ie

Sales:  
T +353 1 857 6730  
F +353 1 857 6729  
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

TECHNICAL REPORT  
RAPPORT TECHNIQUE  
TECHNISCHER BERICHT

**CEN/TR 13387-3**

July 2015

ICS 97.190

Supersedes CEN/TR 13387:2004

English Version

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

This Technical Report was approved by CEN on 8 December 2014. It has been drawn up by the Technical Committee CEN/TC 252.

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**

## CEN/TR 13387-3:2015 (E)

<b>Contents</b>	<b>Page</b>
European foreword .....	5
<b>1 Scope .....</b>	<b>6</b>
<b>2 Mechanical hazards - Safety philosophy .....</b>	<b>6</b>
<b>3 Terms and definitions .....</b>	<b>6</b>
<b>4 Accessibility of mechanical hazards .....</b>	<b>6</b>
4.1 General.....	6
4.2 Accessibility areas .....	7
4.3 Product information.....	8
<b>5 Entrapment hazards .....</b>	<b>9</b>
5.1 Introduction .....	9
5.2 Entrapment of head and neck .....	10
5.2.1 Rationale.....	10
5.2.2 Terms and definitions related to entrapment hazards.....	11
5.3 Requirements .....	12
5.4 Test equipment .....	12
5.4.1 Probe philosophy.....	12
5.4.2 Hip probe .....	12
5.4.3 Small head probe .....	13
5.4.4 Large head probe.....	14
5.4.5 Template for partially bound and V shaped openings.....	15
5.4.6 Selection and use of probes.....	16
5.5 Test methodology .....	17
5.5.1 Feet first openings.....	17
5.5.2 Head first openings .....	17
5.5.3 Partially bound, V and irregular shaped openings.....	17
5.6 Entrapment of fingers .....	19
5.6.1 Rationale.....	19
5.6.2 Requirements .....	20
5.6.3 Test equipment .....	20
5.6.4 Test Methodology .....	21
5.7 Rationale for entrapment of limbs, feet and hands .....	21
<b>6 Hazards from moving parts .....</b>	<b>22</b>
6.1 Rationale.....	22
6.2 General.....	22
6.3 Shearing hazards .....	22
6.3.1 Requirements .....	22
6.3.2 Test equipment .....	23
6.3.3 Test method.....	23
6.4 Requirements for crushing hazards .....	23
<b>7 Hazards with products designed to fold for storage and transportation. ....</b>	<b>23</b>
7.1 Rationale.....	23
7.2 Terms and definitions related to hazards with products designed to fold.....	23
7.3 Requirements .....	24
7.3.1 General.....	24
7.3.2 Unintentional release of locking mechanisms .....	24
7.3.3 Test methodology .....	24

<b>8</b>	<b>Hazards related to attachment mechanisms and opening and closing systems .....</b>	<b>24</b>
8.1	Rationale.....	24
8.2	Requirement.....	25
8.3	Test methodology.....	25
<b>9</b>	<b>Entanglement hazards .....</b>	<b>25</b>
9.1	Snagging hazards.....	25
9.1.1	Rationale.....	25
9.1.2	Requirements.....	25
9.1.3	Test Equipment.....	25
9.1.4	Test Methodology for loop and mass.....	27
9.2	Cords, ribbons and parts used as ties .....	28
9.2.1	Rationale.....	28
9.2.2	Requirements.....	28
9.2.3	Test methodology.....	29
9.3	Loops .....	29
9.3.1	Rationale.....	29
9.3.2	Requirements.....	29
9.3.3	Test methodology.....	29
<b>10</b>	<b>Choking hazards.....</b>	<b>30</b>
10.1	Introduction.....	30
10.2	Hazard due to small components .....	30
10.2.1	Rationale.....	30
10.2.2	Requirements.....	30
10.2.3	Test equipment (also used in 11.2.3).....	31
10.2.4	Test methodology (also in 11.2.4).....	33
10.3	Accessibility of filling materials .....	34
10.3.1	Rationale.....	34
10.3.2	Requirement.....	34
10.3.3	Test equipment .....	34
10.3.4	Test methodology.....	35
10.4	Airway obstruction .....	36
10.4.1	Rationale.....	36
10.4.2	Protective mechanisms of the airway .....	38
10.4.3	Requirements.....	38
10.4.4	Test equipment .....	38
10.4.5	Test methodology.....	39
<b>11</b>	<b>Suffocation hazards .....</b>	<b>39</b>
11.1	Introduction.....	39
11.2	Plastic decals and sheeting .....	40
11.2.1	Rationale.....	40
11.2.2	Requirements.....	40
11.2.3	Determination of hazard .....	40
11.2.4	Test equipment .....	40
11.2.5	Test methodology.....	41
11.3	Non air-permeable packaging .....	41
11.3.1	Rationale.....	41
11.3.2	Requirements - Packaging .....	42
11.3.3	Test equipment .....	42
11.3.4	Test methodology.....	42
<b>12</b>	<b>Ingestion hazards .....</b>	<b>42</b>
12.1	Rationale.....	42
12.2	Ingestion of small components .....	43
12.2.1	Requirements.....	43
12.2.2	Test equipment (Also used in 11.2.3) .....	43
12.2.3	Test methodology.....	45

## CEN/TR 13387-3:2015 (E)

<b>13</b>	<b>Hazardous edges and projections .....</b>	<b>46</b>
13.1	Introduction .....	46
13.2	Edges .....	46
13.2.1	Rationale .....	46
13.2.2	Requirements - Edges on products and components .....	46
13.2.3	Test methodology .....	47
13.3	Rigid protruding parts .....	47
13.3.1	Rationale .....	47
13.3.2	Requirements .....	47
13.3.3	Test methodology .....	47
13.4	Points and wires .....	47
13.4.1	Rationale .....	47
13.4.2	Requirement .....	47
<b>14</b>	<b>Structural integrity .....</b>	<b>47</b>
14.1	Introduction .....	47
14.2	Material suitability .....	48
14.2.1	Rationale .....	48
14.2.2	Requirements .....	48
14.3	Strength and durability of the product .....	49
14.3.1	Rationale .....	49
14.3.2	Requirements .....	49
14.3.3	Test methodology .....	49
<b>15</b>	<b>Protective function .....</b>	<b>49</b>
15.1	Introduction .....	49
15.2	Barrier function .....	49
15.2.1	Rationale .....	49
15.2.2	Requirements .....	50
15.2.3	Test equipment - Hip probe .....	50
15.2.4	Test methodology .....	51
15.3	Restraint systems .....	51
15.3.1	Rationale .....	51
15.3.2	Terms and definitions related to restraint systems .....	52
15.3.3	Requirements .....	52
15.3.4	Test equipment .....	52
15.3.5	Test methodology .....	53
15.4	Footholds .....	54
15.4.1	Rationale .....	54
15.4.2	Requirements .....	54
15.4.3	Test equipment (Templates) .....	55
15.4.4	Determination of a foothold .....	55
15.4.5	Test methodology .....	57
<b>16</b>	<b>Hazard associated with stability .....</b>	<b>59</b>
16.1	Rationale .....	59
16.2	General requirement .....	59
	<b>Bibliography .....</b>	<b>60</b>

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
  - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-