

# DIN EN 12790-1:2023-05 (E)

## Child care articles - Reclined cradles - Part 1: Reclined cradles for children up to when they start to try to sit up

---

<b>Contents</b>		<b>Page</b>
European foreword .....		5
1	Scope .....	7
2	Normative references .....	7
3	Terms and definitions .....	8
4	Test equipment .....	9
4.1	Test mass A .....	9
4.2	Test mass B .....	10
4.3	Small parts cylinder .....	10
4.4	Feeler gauge .....	11
4.5	Test equipment for handle strength test .....	11
4.6	Test probes for finger entrapment .....	14
4.6.1	Test probes with hemispherical end .....	14
4.6.2	Test probe for mesh .....	15
4.6.3	Shape assessment probe .....	15
4.7	Test equipment for handle locking mechanism strength test .....	15
4.8	Test surface for the stability test .....	16
4.9	Test mass C .....	16
4.10	Impactor .....	17
4.11	Test equipment for sound level measurement .....	18
5	General requirements and test conditions .....	18
5.1	Product conditioning .....	18
5.2	Test conditions .....	18
5.3	Application of forces .....	19
5.4	Tolerances .....	19
5.5	Order of tests .....	19
6	Chemical hazards .....	19
6.1	General .....	19
6.2	Migration of certain elements (see A.2) .....	19
6.3	Formaldehyde (see A.2) .....	20
6.4	Colourants (see A.2) .....	20
6.5	Aniline (see A.2) .....	21
7	Thermal hazards .....	21
7.1	Requirements .....	21
7.2	Test method .....	21
8	Mechanical hazards .....	22
8.1	General .....	22
8.1.1	Determination of the junction line .....	22
8.1.2	Positioning of the test mass .....	23
8.1.3	Determination of protected volume .....	23
8.2	Hazards due to sound level .....	24
8.2.1	Requirements .....	24
8.2.2	Test method .....	24
8.3	Entrapment hazards .....	25

8.3.1	Requirements .....	25
8.3.2	Test methods .....	25
8.4	Hazards due to moving parts .....	25
8.4.1	Requirements for compression points .....	25
8.4.2	Requirements for shear points .....	25
8.5	Hazards due to falling of the child .....	26
8.5.1	Angle of seat unit .....	26
8.5.2	Restraint system .....	27
8.5.3	Locking mechanism(s) for carrying handle(s) .....	28
8.6	Hazards due to folding of the product .....	31
8.6.1	Requirements .....	31
8.6.2	Test methods .....	32
8.7	Hazards from entanglement in cords, ribbons and similar parts .....	32
8.7.1	Requirements .....	32
8.7.2	Test method .....	33
8.8	Choking and ingestion hazard .....	33
8.8.1	Requirements .....	33
8.8.2	Test methods .....	34
8.9	Suffocation hazards from plastic packaging .....	35
8.10	Hazards from edges, corners and protruding parts .....	35
8.11	Hazards from inadequate structural integrity .....	35
8.11.1	Static strength .....	35
8.11.2	Dynamic strength .....	36
8.11.3	Reclining system .....	36
8.11.4	Durability of powered mechanisms .....	37
8.11.5	Durability of reclined cradles with carrying handle(s) .....	37
8.11.6	Strength of carrying handle(s) locking mechanism(s) .....	38
8.11.7	Toy bar attachment integrity .....	40
8.12	Hazards from inadequate stability .....	41
8.12.1	Requirements .....	41
8.12.2	Test method .....	41
8.13	Hazards from possible slippage of the reclined cradle .....	42
8.13.1	Requirement .....	42
8.13.2	Test method .....	42
8.14	Electrical hazards .....	42
8.14.1	General .....	42
8.14.2	Leakage prevention .....	43
8.14.3	Test methods .....	43
9	Product information .....	43
9.1	General .....	43
9.2	Marking of the product .....	43
9.2.1	General requirements .....	43
9.2.2	Requirements for reclined cradles with electrical components .....	44
9.3	Purchase information .....	45
9.4	Instructions for use .....	46
9.4.1	General requirements .....	46
9.4.2	Requirements for reclined cradles with electrical components .....	47
Annex A (informative) Rationales .....		48
A.1	Introduction .....	48
A.1.1	General .....	48
A.1.2	Static reclined cradle .....	48
A.1.3	Rocking reclined cradle .....	48
A.1.4	Bouncing reclined cradle .....	48
A.2	Chemical hazards (see Clause 6) .....	48
A.3	Thermal hazards (see Clause 7) .....	48
A.4	Mechanical hazards (see Clause 8) .....	49
A.4.1	Protected volume (see 8.1.3) .....	49
A.4.2	Hazards due to sound level (see 8.2) .....	49
A.4.3	Entrapment hazards (see 8.3) .....	49

<b>A.4.4</b>	<b>Hazards due to moving parts (see 8.4)</b> .....	<b>49</b>
<b>A.4.5</b>	<b>Hazards due to falling of the child (see 8.5)</b> .....	<b>49</b>
<b>A.4.6</b>	<b>Entanglement hazards (see 8.7)</b> .....	<b>49</b>
<b>A.4.7</b>	<b>Choking and ingestion hazards (see 8.8)</b> .....	<b>50</b>
<b>A.4.8</b>	<b>Suffocation hazards (see 8.9)</b> .....	<b>50</b>
<b>A.4.9</b>	<b>Hazardous edges, corners and protruding parts (see 8.10)</b> .....	<b>50</b>
<b>A.4.10</b>	<b>Hazards from inadequate structural integrity (see 8.11)</b> .....	<b>50</b>
<b>A.4.11</b>	<b>Hazards due to the reclining system (see 8.11.3)</b> .....	<b>50</b>
<b>A.4.12</b>	<b>Hazards due to release of toy bar (see 8.11.7)</b> .....	<b>50</b>
<b>A.4.13</b>	<b>Hazards from slippage of the reclined cradle (see 8.13)</b> .....	<b>50</b>
<b>Annex B (normative) Warnings</b> .....		<b>51</b>
<b>Annex C (informative) A-deviations</b> .....		<b>72</b>
<b>Annex ZA (informative) Relationship between this European Standard and the safety requirements of Directive 2001/95/EC aimed to be covered</b> .....		<b>73</b>
<b>Bibliography</b> .....		<b>77</b>