

## SLOVENSKI STANDARD oSIST prEN 14350:2018

**01-november-2018** 

Izdelki za otroke - Pripomočki za pitje - Varnostne zahteve in preskusne metode

Child care articles - Drinking equipment - Safety requirements and test methods

Artikel für Säuglinge und Kleinkinder - Artikel für flüssige Kindernahrung - Sicherheitstechnische Anforderungen und Prüfverfahren

(standards.iteh.ai)

Ta slovenski standard je istoveten z: prEN 14350

ICS:

97.190 Otroška oprema Equipment for children

oSIST prEN 14350:2018 en,fr,de

oSIST prEN 14350:2018

# iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN 14350:2020

https://standards.iteh.ai/catalog/standards/sist/79fb3d66-bfb1-483a-8172-fcc1f8ce1378/sisten-14350-2020

oSIST prEN 14350:2018

## EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

## DRAFT prEN 14350

November 2018

ICS 97.190

Will supersede EN 14350-1:2004, EN 14350-2:2004

**English Version** 

## Child care articles - Drinking equipment - Safety requirements and test methods

Artikel für Säuglinge und Kleinkinder - Artikel für flüssige Kindernahrung - Sicherheitstechnische Anforderungen und Prüfverfahren

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 252.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CEN 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.

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

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

**Warning**: This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Con	Contents	
European foreword 5		
Introduction		6
1	Scope	7
2	Normative references	7
3	Terms and definitions	
4	Description	
	•	
5 5.1	Test equipment and Tolerances	
5.1 5.2	Small parts cylinder	
5.2 5.3	IndentorFixture for security/retention test	
5.3 5.4		
5.4 5.5	Probe for holes (finger traps) test	
5.5 5.6	5.5 Templates A and B	
5.0	Tolerances	ZZ
6	Construction and mechanical properties - General and Sample Preparation	23
6.1	Sample preparation for construction and mechanical properties	23
6.2	General	23
6.3	GeneralPre-treatment (see B.4)	23
6.4	Boiling (see B.5)	23
6.5	Conditioning SIST FN 14350-2020	23
7	Construction and mechanical requirements and tests	sist_23
7.1	Order of testing for construction and mechanical properties	23
7.2	Decoration, Inscription and Decals (see B.6)	
7.3	Visual and tactile examination	
7.4	Small parts	
7.5	Additional requirements for sealing discs (see B.7)	
7.6	Requirements and tests for Containers	
7.7	Requirements and tests for drinking accessories	
7.8	Protective covers (see B.11)	
7.9	Handles and clips (see B.13)	
7.10	Finger traps	
7.11	Protruding parts	
7.11	Cords or Loops	
	•	
8	Chemical requirements and test methods	
8.1	General	
8.2	Preparation of samples for chemical tests	
8.3	Requirements by component and material	
8.4	Volatile compounds content of silicone components intended to be put in the mout or in contact with food (See B.14)	
8.5	<i>N</i> -nitrosamines and <i>N</i> -nitrosatable substance release	
8.6	Migration of certain elements (see B.16 and B.21)	
8.7	2-Mercaptobenzothiazole (MBT), Antioxidant and Formaldehyde release (See B.19	5 ) }.
<i>·</i>	B.20, B.24)	

8.8	Colour Fastness (see B.15)	
8.9	Migration of primary aromatic amines (see B.23)	
8.10 8.11	Migration of lead and cadmium from glass (see B.17)	
9	Consumer packaging	
10 10.1	Product information	
10.1	Purchase information	
10.3	Warnings	
10.4 10.5	Instructions for useSupply chain information for products that contain vulcanised rubber	
	Test report	
11	•	
	A (normative) Warnings	
	B (informative) Rationales	
B.1	Introduction	
<b>B.2</b>	General	
<b>B.3</b>	Preparation of samples for construction and mechanical tests (see 6.1)	
<b>B.4</b>	Pre-treatment (see 6.3)	59
<b>B.5</b>	Boiling (See 6.4)	59
<b>B.6</b>	Decoration, Inscription and Decals (see 7.2)	60
B.7	Additional requirements for sealing discs (see 7.5)	60
<b>B.8</b>	Volumetric Labelling and Accuracy Requirements (see 7.6.1. and 7.6.2)	60
<b>B.9</b> ps:	Tear Resistance Test (see 7.7.1)	61
<b>B.10</b>	Print adhesion of markings and decorations (see 7.6.3)	61
B.11	Protective Covers (see 7.8)	
<b>B.12</b>	Push-Pull valves (see 7.7.2)	62
<b>B.13</b>	Handles and Clips (see 7.9)	
B.14	Volatile compounds content (see 8.4)	62
B.15	Colourants (see 8.8)	
<b>B.16</b>	Migration of certain elements (see 8.6)	
B.16.1	General	
B.16.2	Calculation of migration limits	63
	Weight of a child	
B.16.4	Amount of material that can be bitten/scraped off	63
	Allocation of TDI	
B.17	Migration of lead and cadmium from glass (see 8.10)	64
B.18	Migration of elements from metal (see 8.11)	
R.19	Antioxidant release (see 8.7)	

B.20	Formaldehyde release (see 8.7)	67
B.21	Cr VI Limit (see 8.6)	67
<b>B.22</b>	Mercaptobenzothiazole (MBT) release (see 8.7)	67
B.23	Migration of primary aromatic amines (see 8.9)	67
<b>B.24</b>	Migration Conditions for elastomeric materials	67
Annex	C (informative) Method for the determination of 2-Mercaptobenzothiazole (MBT) and antioxidants specified in Table 7	69
<b>C.1</b>	Apparatus	69
<b>C.2</b>	Procedure	69
<b>C.3</b>	Column	70
<b>C.4</b>	Detection	70
C.5	Standards	70
<b>C.6</b>	Preparation of standard solutions of MBT and antioxidants	71
<b>C.7</b>	Retention Times	71
<b>C.8</b>	Calculation of MBT and Antioxidants	<b>73</b>
Annex	D (informative) A-Deviations	74
Annex	E (informative) Good Practice for Visibility and Legibility	<b>75</b>
E.1	General Standards itch ai	75
<b>E.2</b>	Warnings	
<b>E.3</b>	Font <u>SIST EN 14350-2020</u>	
<b>E.4</b>	Multi-languages Multi-language	75
Bibliog	pranhy	76

### **European foreword**

This document (prEN 14350:2018) has been prepared by Technical Committee CEN/TC 252 "Child use and care articles", the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 14350-1:2004 and EN 14350-2:2004.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN 14350:2020</u> https://standards.iteh.ai/catalog/standards/sist/79fb3d66-bfb1-483a-8172-fcc1f8ce1378/sist-

#### Introduction

This document harmonises minimum safety requirements and test methods for children's drinking equipment. Some of the provisions have been taken from other existing national and Documents and for these provisions the Technical Committee has relied on previous validation.

A significant choking hazard can arise if the component parts of drinking equipment become separated during use. This hazard is addressed in this document by the inclusion of a security test. However, as the fixing of such products to the container is user-dependent, the risk of an accident cannot be completely eliminated. This document sets out labelling requirements stating that parents or carers should not leave children unattended whilst being fed with a product containing a feeding teat or other drinking accessory and that children should not be allowed to use feeding teats as a soother.

The Technical Committee considered the possibility of standardizing both sizes of feeding teats and ranges of flow rates. However, it was decided that the many combinations of container systems precluded being standardized. It is recommended that all container and drinking accessory combinations are matched components.

Providing meaningful flow rate information is difficult because of several factors including hole diameter, teat thickness, hole shape/type of feed, and also how individual infants suck the teat. Accordingly, it was decided not to include a test for flow rate but to recommend that manufacturers provide information on flow rate and hole size that is appropriate to their particular product.

All food contact materials and articles are regulated by European Regulation (EC) 1935/2004 [1] and relevant implementation measures, at European or national level. Therefore, for example, the Bisphenol A requirement has not been included.

All plastics components of drinking equipment are specifically regulated by the Commission Regulation (EU) 10/2011 [2] on plastic materials and articles intended to come into contact with food.

Phthalates in childcare articles is restricted by Annex XVII of REACH Regulation [3] and has not been included in this standard. Ich. ai/catalog/standards/sist/79fb3d66-bfb1-483a-8172-fcc1f8ce1378/sist-

There is no published information that sensitization is caused by feeding teats and there is an extremely low incidence of latex protein allergy among young children and babies. Nevertheless, provision for packaging information for feeding teats made from natural rubber latex has been included in this standard.

It is recommended that manufacturers and suppliers operate to EN ISO 9001 standard for quality management systems [4]. It is also recommended that laboratories operate to ISO/IEC 17025, General requirements for the competence of testing and calibration laboratories [5].

#### 1 Scope

This document specifies safety requirements relating to the materials, construction, performance, packaging and product information for equipment marketed for children of 0 to 48 months (see B.2) of age to drink:

- Re-usable drinking accessories
- Re-usable feeding bottles and drinking cups
- Single-use feeding bottles, feeding bags and drinking accessories sold with these bottles
- Single-use feeding teats
- Ready to use feeding teats

This document does not include requirements for the cleanliness of ready to use and single use products.

This document does not apply to products designed for specialist clinical medical applications, e.g. those relating to cleft lip palates.

This document does not apply to drinking equipment made from ceramics.

This document does not apply to bags intended for storage only.

This document does not apply to drinking equipment which is supplied with fluids or food when purchased.

This document is not applicable to soothers. Safety requirements and test methods for soothers are specified in EN 1400 [6].

Safety requirements and test methods for Cutlery and other feeding equipment are specified in EN 14372- Cutlery and feeding utensils [7].

#### 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 71-3, Safety of toys – Part3: Migration of certain elements

EN 12868, Child use and care articles - Methods for determining the release of N-nitrosamines and N-nitrosatable substances from elastomer or rubber teats and soothers

EN ISO 3696, Water for analytical laboratory use – Specification and test methods (ISO 3696)

IEC 60454-2, Pressure-sensitive adhesive tapes for electrical purposes, Part 2: Methods of test

ISO 188:2011, Rubber, vulcanized or thermoplastic – Accelerated ageing and heat resistance tests

#### 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 <a href="http://www.electropedia.org/">http://www.electropedia.org/</a>
- ISO Online browsing platform: available at <a href="http://www.iso.org/obp">http://www.iso.org/obp</a>

#### 3.1

#### matched components

components which are intended to be used together whilst feeding a child

Note 1 to entry: their dimensions are matched to fit together and fulfil the relevant safety requirements

Note 2 to entry: see definitions 3.2-3.9

#### 3.2

#### drinking accessory

device which permits a child to obtain fluid from a container

#### 3.2.1

#### feeding teat

elastic device other than a straw that when attached to a container permits a child to obtain fluid

#### 3.2.2

#### drinking spout

non-elastic device other than a straw that when attached to a container permits a child to obtain fluid

## 3.2.3 https://standards.iteh.ai/catalog/standards/sist/79fb3d66-bfb1-483a-8172-fcc1f8ce1378/sist-

#### push-pull valve

valve on a container or drinking accessory designed to be manually operated by a push-pull, twist or similar action

Note 1 to entry: A push-pull valve is also known as a "sports cup spout"

#### 3.2.4

#### straw

drinking accessory consisting of a cylindrical hollow tube which is in contact with the mouth and through which fluid is sucked

#### 3.2.5

#### protruding part

drinking accessory when assembled on a container

#### 3.3

#### container

feeding bottle, drinking cup or feeding bag

#### 3.3.1

#### feeding bottle

container which is capable of holding fluid incorporating a graduated scale suitable for visual measurement and is intended for feeding a child through a feeding teat or other suitable drinking accessory

#### 3.3.2

#### drinking cup

container other than a feeding bottle or feeding bag capable of holding a fluid intended for feeding a child

Note 1 to entry: Drinking cups are also known as "beakers" in the English language

#### 3.3.3

#### feeding bag

bag capable of holding fluid and designed to be used with drinking accessories

Note 1 to entry: Feeding bags are also known as feeding liners

#### 3.3.4

#### Feeding bag holder

support for a feeding bag

Note 1 to entry: see Figure 4 No 8

#### 3.4

#### locking ring

component used to secure a drinking accessory to a container

#### 3.5

#### sealing disc

component used to create a seal between the container and the locking ring

#### 3.6

#### protective cover

component to cover a drinking accessory FN 14350-2020

#### 3.6.1

#### detachable protective cover

detachable protective cover or parts intended to be detachable.

Note 1 to entry: After being detached they can be reassembled in the original state.

#### 3.6.2

#### permanent protective cover

permanent cover intended to be attached to other components of the product.

Note 1 to entry: It can only be detached by using a tool or force and cannot be reassembled afterwards.

#### 3.7

#### handle

component designed to assist the handling of a container during drinking

#### 3.8

#### clip

component designed to assist the attachment of a container onto garments

#### 3.9

#### cord or loop

flexible component designed to assist the handling of a container.

#### 3.10

#### products in food contact

product consisting of a container already filled with food, including feeding accessories fixed to it

#### 3.11

#### graduations

markings which indicate the volume of fluid within the container, numbered or unnumbered

#### 3.12

#### single-use drinking accessory or container

product intended to be used without the need to clean and to be disposed of after first use

#### 3.13

#### re-usable

component intended to be used again after first use

#### 3.14

#### ready to use product

product intended to be used without the need to clean before first use, but maybe reusable

#### 3.15

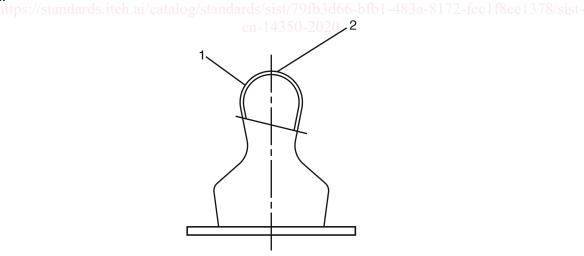
#### outer packaging

any packaging used for storage of the product by a retailer, not including the packaging intended for the consumer

### 4 Description

(standards.iten.ai)

Figures 1 – 7 illustrate typical examples of different items of drinking equipment and their design features.



#### Key

- 1 nipple
- 2 feeding hole/holes

Figure 1 — Design features of a feeding teat

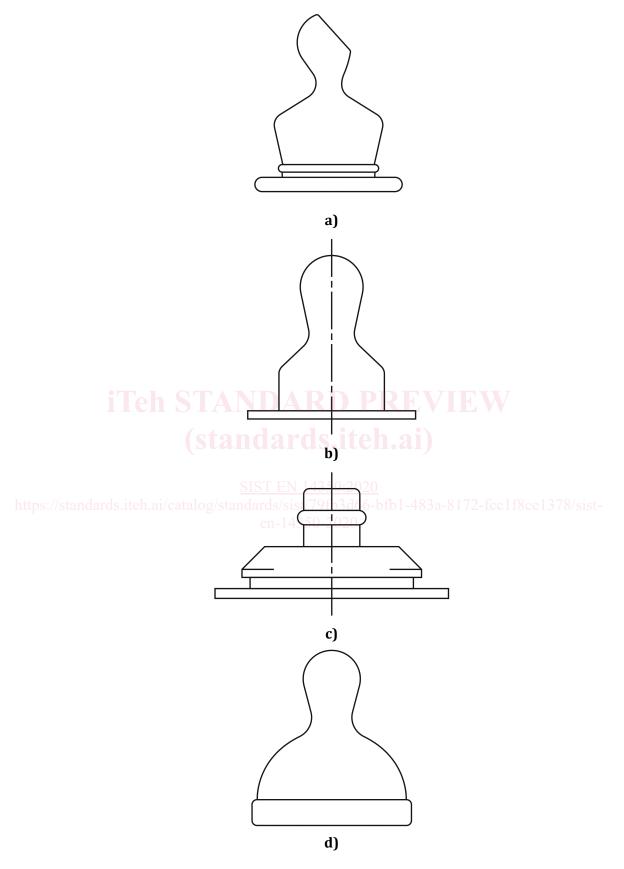
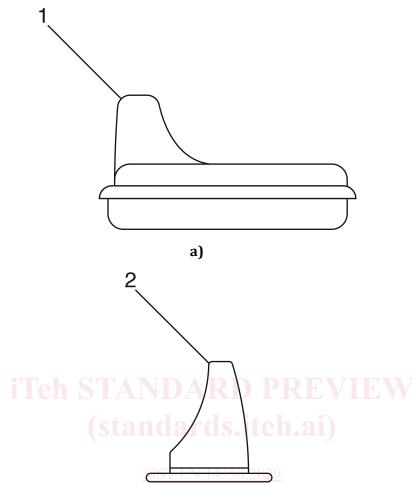
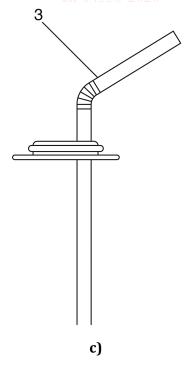
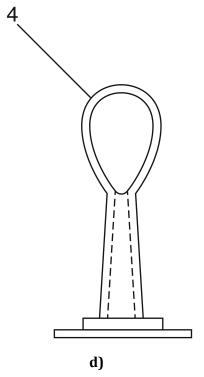


Figure 2 — Examples of feeding teats



https://standards.iteh.ai/catalog/standards/sist/79fb3d66-bfb1-483a-8172-fcc1f8ce1378/sist-en-1**b**)350-2020





## Key iTeh STANDARD PREVIEW

- 1 feeding spout
- 2 trainer spout
- 3 straw
- 4 trainer spoon

SIST EN 14350:2020

Figure 3 — Examples of drinking accessories