



**SLOVENSKI STANDARD**  
**oSIST prEN 16948:2016**  
**01-januar-2016**

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**Izdelki za zaščito otrok - Zapirala za omare in predale, ki jih potrošniki namestijo zaradi varnosti otrok - Varnostne zahteve in preskusne metode**

Child protective products - Consumer fitted child resistant locking devices for cupboards and drawers - Safety requirements and test methods

Kindersicherheitsprodukte - Von Verbrauchern angebrachte kindergesicherte Sperrvorrichtungen für Schränke und Schubladen - Sicherheitsanforderungen und Prüfverfahren

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**ICS:**

97.140	Pohištvo	Furniture
97.190	Otroška oprema	Equipment for children

**oSIST prEN 16948:2016**

**en,fr,de**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**prEN 16948**

November 2015

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ICS 97.140

English Version

## Child protective products - Consumer fitted child resistant locking devices for cupboards and drawers - Safety requirements and test methods

Articles pour la sécurité des enfants - Dispositifs de fermeture à monter soi-même résistants aux enfants pour les armoires et les tiroirs - Exigences de sécurité et méthodes d'essai

Kindersicherheitsprodukte - Vom Verbraucher angebrachte kindergesicherte Sperrvorrichtungen für Schränke und Schubladen - Sicherheitsanforderungen und Prüfverfahren

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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.

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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

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## European foreword

This document (prEN 16948:2015) has been prepared by Technical Committee CEN/TC 398 “Child protective products”, the secretariat of which is held by ASI.

This document is currently submitted to the CEN Enquiry.

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**prEN 16948:2015 (E)****1 Scope**

This European Standard specifies requirements and test methods for locking devices fitted by consumers in a domestic environment for cupboards and drawers for restricting access by young children.

NOTE Child resistant locking devices only intended to be installed by professionals or that are an integral part of the cupboard and drawer system are beyond the scope of this standard.

**2 Normative references**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN ISO 8317, *Child-resistant packaging - Requirements and testing procedures for reclosable packages (ISO 8317)*

**3 Terms and Definitions**

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

**3.1 child protective locking device for cupboards and drawers**  
device mounted on cupboards and drawers intended to make it difficult for young children to access the contents of the cupboard/drawer

**3.2 locking mechanism**  
part of the locking device which prevents opening of the cupboard or drawer

**3.3 child appealing locking device**  
locking device that resembles by any means another object commonly recognized as appealing to or intended for use by young children, or has entertaining audio effects or animated effects

Note 1 to entry: This includes, but is not limited to locking devices the shape of which resembles cartoon characters, toys, guns, watches, telephones, musical instruments, vehicles, human body or parts of the human body, animals, food or beverages, or that play musical notes, or have flashing lights or moving objects or other entertaining features.

**4 Requirements****4.1 Child appeal**

The locking device shall not be child appealing.

**4.2 Child protective function****4.2.1 General**

The locking mechanism shall be resistant to operation by young children. It shall either:

a) not release when a force of less than 50 N is applied when tested in accordance with 5.5.2; or

- b) require at least two consecutive actions to release the locking mechanism, the operation of the second action being dependent on the first action having been carried out and maintained; and require either
- the application of a force of at least 20 N for any linear operation when tested in accordance with 5.5.3; or
  - the application of a torque of at least of  $0,34 \text{ Nm} \pm 0,03 \text{ Nm}$  for any rotational operation when tested in accordance with 5.5.3; or
- c) require at least two separate but simultaneous actions to release the locking mechanism operating on different principles; and require either
- the application of a force of at least 20 N for any linear operation when tested in accordance with 5.5.3; or
  - the application of a torque of at least of  $0,34 \text{ Nm} \pm 0,03 \text{ Nm}$  for any rotational operation when tested in accordance with 5.5.3; or
- d) require the use of a specifically designed removable device or removable tool (e.g. a key or a magnet); or
- e) comply with the child panel test requirements in 4.2.2.

NOTE 1 Ideally, the locking mechanism would automatically re-engage when closing the cupboard or drawer after having been completely disengaged. However, at this point in time this is not a requirement. It may become a requirement in future.

NOTE 2 In b) maintaining the first action cannot mean that the locking mechanism remains in the partially unlocked position without continued intervention of the user.

## 4.2.2 Requirements concerning the child panel test

### 4.2.2.1 General

The locking mechanism shall comply with either 4.2.2.2 or 4.2.2.3.

NOTE: The minimum number of children required in the sequential test depends on how many children can open the locking mechanism. This number can be as low as 30.

### 4.2.2.2 Test panel of 200 children

If the full test panel of 200 children is used when testing in accordance with 5.4, the following requirements shall be met:

- a) at least 85 % of the children in the test panel shall be unable to disengage the locking mechanism within the first 5 min without a demonstration; and
- b) at least 80 % of the children in the test panel shall be unable to disengage the locking mechanism within another 5 min after a demonstration has been given to those children unable to disengage the device in the first 5 min.

### 4.2.2.3 Sequential test – less than 200 children

If the full test panel is not used when testing in accordance with 5.4, the result is obtained from completing Figure 1 and Figure 2 as follows:

- a) the result of the test is a failure if the child succeeds in disengaging the locking mechanism;

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b) as each result is obtained, it shall be plotted on the appropriate chart by filling in a square as follows:

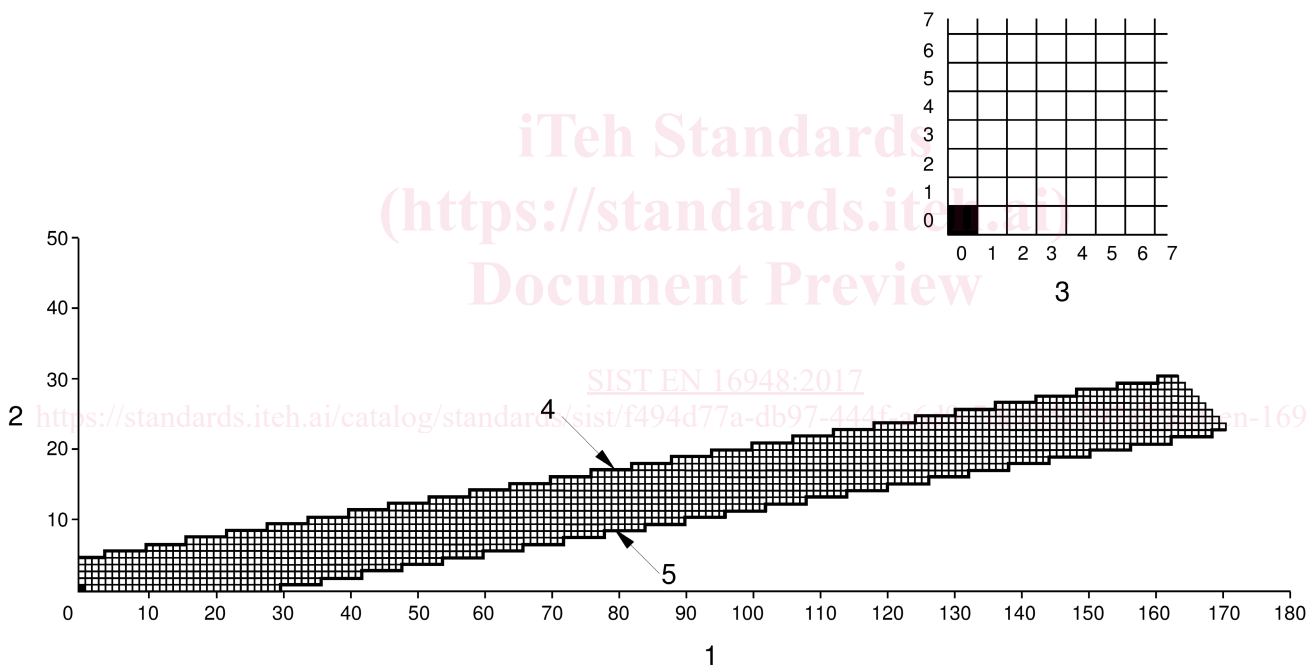
- 1) fill in a square immediately to the right of the previous result on Figure 1 if the child failed to disengage the locking mechanism in the first 5 min, and on Figure 2 if the child failed to disengage the locking mechanism in the second 5 min, i.e. if the result is a success;
- 2) fill in a square immediately above the previous result on Figure 1 and Figure 2 if the child succeeded in disengaging the locking mechanism in the first 5 min, or only on Figure 2 if the child succeeded in disengaging the locking mechanism in the second 5 min, i.e. if the result is a failure.

NOTE In the case of the first result to be plotted, the blanked out square is regarded as the “previous result”.

The locking device shall be deemed to have:

- passed the test as soon as the trail of filled squares passes below limit line 1 on both Figure 1 and Figure 2;
- failed the test as soon as the trail of filled squares passes above limit line 2 on either Figure 1 or Figure 2.

If neither occurs, the results shall be assessed in accordance with the requirements laid down in 4.2.2.2.



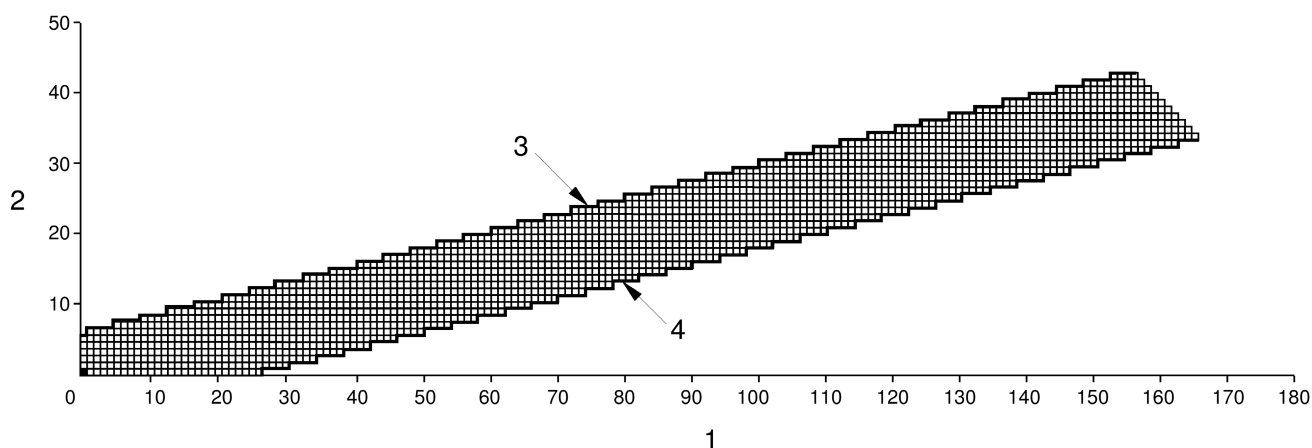
Key

- |   |  |   |              |
|---|--|---|--------------|
| 1 | number of locking mechanism not disengaged | 4 | limit line 2 |
| 2 | number of locking mechanism disengaged     | 5 | limit line 1 |
| 3 | enlargement of chart scale                 |   |              |

Acceptable quality limit (AQL) = 5 %; limiting quality (LQ): 20 %;  $\alpha = \beta = 5 \%$ , where  $\alpha$  is the producer’s risk;  $\beta$  is the consumer’s risk.

Figure 1 — Chart of a sequential child test procedure (before demonstration) for locking mechanism





### Key

- |   |  |   |              |
|---|--|---|--------------|
| 1 | number of locking mechanism not disengaged | 3 | limit line 2 |
| 2 | number of locking mechanism disengaged     | 4 | limit line 1 |

Acceptable quality limit (AQL) = 5 %; limiting quality (LQ): 20 %;  $\alpha = \beta = 5$  %, where  $\alpha$  is the producer's risk;  $\beta$  is the consumer's risk.

NOTE For an enlargement of the chart scale, see Figure 1.

**Figure 2 — Chart of a sequential child test procedure (after demonstration) for locking mechanism**

#### 4.2.2.4 Full test

If a sequential procedure is not used and the full number of children is tested, the results shall be assessed in accordance with the requirements laid down in 4.2.2.2.

#### 4.2.2.5 Additional information to be recorded

Any other information deemed to be useful in assessing the interpretation of the result, such as the time required for children to disengage the locking mechanism and, where appropriate, to engage it properly, the method used by children to disengage it, etc. shall be recorded.

### 4.3 Mechanical function and structural integrity

The locking device shall maintain its mechanical properties throughout its expected lifetime.

The manufacturer shall indicate the type(s) of cupboards and drawers including the materials (e.g. glass, aluminium, PVC, wood) for which the locking device is or is not suitable. In particular, the manufacturer shall ensure that the fixing (e.g. screws) of the locking device is suitable for the recommended material(s).

When tested according to 5.5.1 and 5.5.4, none of the tested items or any part of the items shall be broken or have any visible cracks or permanent deformation or disengage. All devices shall be fully functional during and after the tests. For devices that are intended to re-engage automatically the automatic re-engagement function shall still operate.

For all locking devices when the product is mounted in accordance with the manufacturer's instructions, the maximum gap into which a child could insert its fingers shall not exceed 30 mm when tested in accordance with 5.5.5.

**prEN 16948:2015 (E)****4.4 Small parts**

When tested according to 5.5.6, any small part or component which becomes detached of the locking device shall not fit wholly within the small parts cylinder described in 5.2.5.

Any removable tool shall not fit wholly within the small parts cylinder described in 5.2.5.

**4.5 Sharp edges**

Edges and protruding parts accessible during normal use shall be rounded or chamfered and free of burr and sharp edges.

**4.6 Purchase information**

The following information shall be visible at the point of sale:

- information on which types, sizes and materials of cupboards and drawers which the locking device is intended for or is not intended for.

**4.7 User instructions**

The product information and user instructions shall be presented in the official language(s) of the country of sale.

Information concerning safe mounting and use of the locking device shall be provided. These instructions shall include at least the following:

- name or trade mark of the manufacturer, importer or organization responsible for its sale and contact details including postal address, web and email addresses;
- the instruction: “Read this instruction carefully before mounting and using the device. The child protective function of the device may be affected if you do not follow the instructions. Keep the instructions for future reference”;
- a WARNING “This locking device restricts access by young children to the contents of a cupboard or drawer but cannot ensure absolute child safety”;
- information on which types, sizes and materials of cupboards and drawers which the locking device is intended for or is not intended for;
- precise and understandable instructions including as a minimum appropriate diagrams and/or photographs on how and where to install the locking device to ensure the intended child protective function and how to remove it when it is no longer needed;
- where applicable, the instructions shall indicate that the maximum gap into which a child could insert its fingers shall not exceed 30 mm when the drawer or cupboard door is open with the locking mechanism engaged;
- advice on surface preparation for devices fixed using adhesives;
- a statement on whether the product is suitable to reuse after dismounting;
- instruction to check the device regularly;
- WARNING - “Replace the device if any part is broken, torn or missing”;