

**SLOVENSKI STANDARD**  
**kSIST-TS FprCEN/TS 17394-4:2019**  
**01-september-2019**

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**Tekstilije in tekstilni izdelki - 4. del: Varnost otroških oblačil - Varnost pritrditve pritrjenih delov, razen gumbov in kovinskih pritiskačev - Preskusna metoda**

Textiles and textile products - Part 4: Safety of children's clothing - Security of attachment of components except buttons and metal mechanically applied press fasteners - Test method

Textilien und textile Produkte - Sicherheit von Kinderbekleidung - Teil 4: Sicherheit der Befestigung von Komponenten außer Knöpfen und mechanisch befestigten Druckknöpfen - Prüfverfahren (standards.iteh.ai)

Textiles et produits textiles - Partie 4 : Sécurité des vêtements d'enfants - Sécurité d'attache des composants à l'exception des boutons et des boutons-pression métalliques appliqués mécaniquement - Méthode d'essai

**Ta slovenski standard je istoveten z: FprCEN/TS 17394-4**

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**ICS:**

61.020	Oblačila	Clothes
97.190	Otroška oprema	Equipment for children

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TECHNICAL SPECIFICATION  
SPÉCIFICATION TECHNIQUE  
TECHNISCHE SPEZIFIKATION

**FINAL DRAFT**  
**FprCEN/TS 17394-4**

July 2019

ICS

English Version

**Textiles and textile products - Part 4: Safety of children's clothing - Security of attachment of components except buttons and metal mechanically applied press fasteners - Test method**

Textiles et produits textiles - Partie 4 : Sécurité des vêtements d'enfants - Sécurité d'attache des composants à l'exception des boutons et des boutons-pression métalliques appliqués mécaniquement - Méthode d'essai

Textilien und textile Produkte - Sicherheit von Kinderbekleidung - Teil 4: Sicherheit der Befestigung von Komponenten außer Knöpfen und mechanisch befestigten Druckknöpfen - Prüfverfahren

This draft Technical Specification is submitted to CEN members for Vote. It has been drawn up by the Technical Committee CEN/TC 248.

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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.

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

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

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## **European foreword**

This document (FprCEN/TS 17394-4:2019) has been prepared by Technical Committee CEN/TC 248 “Textiles and textile products”, the secretariat of which is held by BSI.

This document is currently submitted to the vote on TS.

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**FprCEN/TS 17394-4:2019 (E)****Introduction**

The aim of this document is to assess the security of attachment of components except buttons and metal mechanically applied press fasteners.

This document provides a method of test. A document providing performance specification for infants' clothing is under development.

This document has been developed from Annex C of CEN/TR 16792:2014 Safety of children's clothing. Recommendations for the design and manufacture of children's clothing - Mechanical safety.

The method given in this document involves a washing and drying process and provides an example of a wash to assess the durability of attachment of components. It is not to assess the performance of the garment. For this reason, the test conditions are much more aggressive than the conditions used in normal laundering. The following is an example of suitable a wash test which gives a very aggressive wash action. At the time of drafting this document, an equivalent wash programme for the Wascator washing machine, as specified in EN ISO 6330, is not available.

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## 1 Scope

The method described in this document complements

- prEN 17394-2:2019, Safety of children's clothing – Security of attachment of buttons – Test Method
- FprCEN/TS 17394-3:2019, Safety of Children's Clothing - Security of Attachment of metal mechanically applied press fasteners - Test method

and is applicable to all other components including labels, badges, sequins, rhinestones, eyelets and non-metal press fasteners, which are too small to be gripped in test equipment jaws or their integrity is disrupted by gripping.

The performance requirements are provided in FprCEN/TS 17394-1:2019, Safety of children's clothing - Security of attachment of attached components to Infants' clothing - Specification

The method is an extremely aggressive wash method has been developed to assess if the components remain attached.

It is specifically applicable to clothing, where the detachment of these components might result in accidents to children.

This document does not apply to:

- a) child care articles;
- b) shoes, boots and similar footwear;
- c) toys (see Note 2);
- d) other articles sold with clothing;

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NOTE 1 The above items are covered by other CEN Technical Committees and as such are out of scope of this document.

NOTE 2 Toy disguise costumes including carnival costumes are examples of clothing which are also toys and fall within the scope of the Toy Safety Directive.

## 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 ISO 6330:2012, *Textiles - Domestic washing and drying procedures for textile testing (ISO 6330:2012)*

## FprCEN/TS 17394-4:2019 (E)

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

**3.1 child (or young person)**  
person aged from birth to aged up to age 14 years (that is up to and including 13 years and 11 months) which includes all boys of height up to 182 cm and all girls up to 176 cm

[SOURCE: EN 14682:2014, merged Clauses 2.1 and 2.2]

**3.2 children's clothing**  
all garments intended by design, production route or selling route to be worn by children up to age of 14 years

[SOURCE: EN 14682:2014, 2.3]

**3.3 garment assembly**  
section of a garment, made under production conditions using production equipment and the components that are to be used in production

[SOURCE: CEN/TR 16792:2014, 3.10] <https://standards.iteh.ai/catalog/standards/sist/f549c5d5-f76a-418e-846f-8f74628b2254/ksist-ts-fprcen-ts-17394-4-2020>

**3.4 press fastener**  
fastening device consisting of a male component and a female component that are attached to different parts of a garment and which are fastened by aligning the two components and pressing them together. Press fasteners may be functional or decorative

Note 1 to entry: Press fasteners includes poppers and snaps.

Note 2 to entry: Press fasteners can be attached to a garment mechanically or can be sewn

[SOURCE: CEN/TR 16792:2014, 3.9.1]

**3.5 eyelet**  
item used to reinforce a hole through a garment, comprising a short metal tube with a flange at one end which is fastened to the garment by pushing it through the hole and compressing it against a die

Note 1 to entry: An eyelet may also include a washer on the reverse side.

Note 2 to entry: Eyelets are used to facilitate lacing or the insertion of a drawstring, to drain pockets or to ventilate a garment.

Note 3 to entry: Eyelets may be functional or decorative

[SOURCE: CEN/TR 16792:2014, 3.9.4]



## 4 Principle

A set of test specimens, and a reference specimen, are examined and a detailed record made of the location, means of attachment and condition of all attached components. The test specimens are washed and dried, while the reference specimen is retained without treatment. The attached components on the test specimens are re-examined with reference to the records from the initial examination, and compared with the reference specimen, and any changes recorded.

## 5 Sampling

### 5.1 Selection of test specimens and reference specimen

A sufficient number of garments or garment assemblies should be selected to enable testing of 5 specimens of the following:

- each type of attached component;
- each size of attached component; and
- each component/substrate combination.

It is recognized that this number of specimens might not always be available for testing at the design/development stage. In such circumstances a smaller number may be taken but the test results obtained should be interpreted with caution.

In addition, a further complete garment or garment assembly should be retained, untreated, for use as a reference specimen.

## 6 Test methods

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### 6.1 Apparatus

**6.1.1 Washing machine**, single bath, with a process tank of  $(55 \pm 2)$  litres capacity, fitted with a side impeller with a diameter of 150 mm and a rotation speed of  $(560 \pm 30)$  rev/min, allowing for a continuous wash action, fitted with a temperature controller capable of maintaining wash temperatures of  $(40 \pm 2)$  °C,  $(50 \pm 2)$  °C and  $(60 \pm 2)$  °C. Normal operating capacity is  $(40 \pm 2)$  litres<sup>1)</sup>

**6.1.2 Spin drier**

**6.1.3 Tumble dryer**, meeting specification of EN ISO 6330:2012, type A

**6.1.4 Timer**, capable of measuring 15 min with an accuracy of  $\pm 30$  s.

**6.1.5 Mesh drying trays with a non-rusting finish**, large enough for the test specimens to be laid out flat

**6.1.6 Balance**, capable of weighing up to at least 2 kg with an accuracy of  $\pm 25$  g.

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1) A Durawash machine is an example of a suitable machine. Durawash is a trade name owned by Advanced Dyeing Solutions Ltd., Bretfield Court, Dewsbury, West Yorkshire, WF12 9DB, UK, and is an example of a suitable test machine available commercially. This information is given for the convenience of users of this document and does not constitute an endorsement by CEN of this product.