
Embalaza - Varnostne smernice za embalazo iz prozne plastike za zmanjsanje tveganja zadusitve pri otrocih

Packaging - Safety guidelines for flexible plastic packaging to minimize the risk of suffocation to children

Verpackung - Sicherheitsleitfaden für flexible Kunststoffverpackungen zur Reduzierung des Risikos der Erstickung von Kindern

Emballage - Lignes directrices de sécurité relatives aux emballages en plastique souple pour réduire au minimum le risque d'étouffement des enfants

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TECHNICAL REPORT
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English Version

**Packaging - Safety guidelines for flexible plastic packaging to
minimize the risk of suffocation to children**

Emballage - Lignes directrices de sécurité relatives aux
emballages en plastique souple pour réduire au minimum
le risque d'étouffement des enfants

Verpackung - Sicherheitsleitfaden zur Verminderung der
Erstickungsgefahr von Kindern durch flexible
Kunststoffverpackungen

This Technical Report was approved by CEN on 25 March 2012. It has been drawn up by the Technical Committee CEN/TC 261.

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Foreword

This document (CEN/TR 16353:2012) has been prepared by Technical Committee CEN/TC 261 “Packaging”, the secretariat of which is held by AFNOR.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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Introduction

This document presents guidance to minimize the risk of suffocation of children from flexible plastic packaging.

Babies and young children play with anything to which they have easy access. Their lack of understanding of hazards is such that they will use materials in ways for which they were not intended. Death or serious brain injury can occur to young children as a result of suffocation when their nose and mouth become covered or all the oxygen in the enclosure in which their heads are trapped is used up.

Parents and carers have a major role to play in reducing the risk of suffocation through supervision of children and careful storage or disposal of packaging materials but it is not a reliable or complete solution. If the packaging of products can be made safer without loss of functions, appropriate measures should be carefully considered and implemented.

This document recognises that flexible plastic packaging is necessary to protect products¹⁾, for example by:

- allowing the consumer to carry the product easily;
- preventing moisture contaminating the product;
- protecting the product from physical damage;
- ensuring that multiple units of a product remain together for transit, for example on a pallet.

Not all of these types of packaging are readily accessible to consumers.

Manufacturers should have regard for the safety aspects of any flexible plastic packaging that they use as well as for environmental reasons.

NOTE Specific requirements for packaging materials are included in standards, including EN 71-1[1] and EN 1930 [2]. The guidance contained in this Technical Report does not replace that contained in specific standards.

¹⁾ The term “product” used for convenience throughout this document is intended to include anything that may be enclosed in flexible plastic packaging, including electrical appliances and foodstuffs.

1 Scope

This Technical Report covers the safety of flexible plastics packaging that is likely to be accessible to children in the home and may pose a risk of suffocation.

It includes flexible plastics packaging intended for single or repeated use.

2 Terms and definitions

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

2.1

single use packaging

packaging that after its first use cannot be used again because it has to be destroyed to gain access to the product contained within it

2.2

repeated use packaging

packaging intended to be used or capable of being used more than one time

3 Risk assessment

The risk of suffocation should be assessed, having regard for:

- the need for the product to be wrapped in flexible plastic packaging;
- the nature of product being packaged – the packaging for very small products may not present a risk;
- whether the packaging material will be destroyed when the product is unwrapped, for example shrunk-on packaging;
- whether the packaging is intended for single or repeated use or is capable of repeated use. The risks associated with repeated use packaging (e.g. bags) may be greater than for single use;
- the use of designs, colours or other properties that may make the packaging particularly appealing to young children.

After assessing the risk, appropriate remedial actions should be undertaken. Ideally, the risk should be eliminated by not using packaging that may result in suffocation. When this is not possible, the design of the packing should be such that the risk is minimized (for example, through the use of ventilation holes). When a design approach is not possible, clear warnings should be provided to the consumer.

4 Safety strategies

4.1 General

Flexible plastic sheeting and bags should be sufficiently thick so that it will not take the shape of a child's face and cover its nose and mouth, or should be provided with means of ventilation, for example holes that allow sufficient air to pass through to maintain life.

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NOTE Flexible plastic sheeting more than 0.038 mm thick is unlikely to take the shape of a child's face and is therefore not regarded as presenting a risk of suffocation. See also 4.2 (a) Note 1 and 4.3 (a) Note 1.

All materials intended for disposal after delivery to the final destination should be marked with a warning if they may cause, due to their size and material, the risk of interfering with the airways of the child and/or the risk of containing oxygen reduced air.

It should be recognized that some safety strategies, such as holes, can affect the functionality or the performance of the packaging.

4.2 Single use packaging

Holes in plastics flexible packaging can reduce the risk of suffocation.

Flexible plastic sheeting used for packaging, unless in the form of a bag with an opening perimeter of less than 380 mm, should conform to a) or b):

NOTE 1 Bags with an opening perimeter of less than 380 mm cannot be placed over the head of most young children and do not therefore present a risk of suffocation.

- a) Films without any backing and of an area greater than 100 mm × 100 mm should have an average thickness of not less than 0,038 mm measured according to Clause 6.

NOTE 2 0,038 mm is a typical value for PE-LD and it will vary for other materials. The critical parameter is the stiffness of the film and not its thickness.

NOTE 3 Flexible plastic sheeting more than 0,038 mm thick is unlikely to take the shape of a child's face and is therefore not regarded as presenting a risk of suffocation.

- b) Films with an average thickness of less than 0,038mm, measured according to Clause 6, and of an area greater than 100 mm × 100 mm should be perforated with 6 mm diameter holes so that a minimum of 1% of the area has been removed over any area of 30 mm × 30 mm.

- c) Plastic packaging with holes as specified should allow sufficient air to pass through to allow life to be maintained.

4.3 Repeated use packaging

Holes in plastics films or bags can reduce the risk of suffocation.

Flexible plastic sheeting used for packaging, unless in the form of a bag with an opening perimeter of less than 380 mm, should conform to a) or b):

NOTE 1 Bags with an opening perimeter of less than 380 mm cannot be placed over the head of most young children and do not therefore present a risk of suffocation.

- a) Films without any backing and of an area greater than 100 mm × 100 mm should have an average thickness of not less than 0,038 mm measured according to Clause 6.

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- b) Films with an average thickness of less than 0,038mm, measured according to Clause 6, and of an area greater than 100 mm × 100 mm should be perforated with 6 mm diameter holes so that a minimum of 1% of the area has been removed over any area of 30 mm × 30 mm.

- c) Plastic packaging with holes as specified should allow sufficient air to pass through to allow life to be maintained.

The following warning label can help parents or carers to be aware of the potential risk of suffocation:

KEEP THIS PACKAGING AWAY FROM CHILDREN

TO AVOID DANGER OF SUFFOCATION

in the language(s) of the country in which the product is supplied to the consumer.

- d) Plastic packaging with an opening perimeter greater than 380 mm should not have a drawstring or cord as a means of closing.

5 Test equipment

Measuring device capable of measuring thickness to an accuracy of 1 µm.

6 Test methodology

Tests shall be carried out on single film only.

If the packaging is a bag, prepare the sample by cutting the sides, without stretching, into two single sheets. Measure the thickness of any sheet at 10 equidistant points across the diagonal of any 100mm × 100mm area and average the reading.

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