

One Foot AS  
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Norge

## Testing according to SS-EN 71-1:2011

### Summary

Testing of small skies called Miniski according to SS-EN 71-1:2011 Safety of toys – Part 1: Mechanical and physical properties for children over 36 months has been made by SP and the sample fulfils the tested paragraphs.

The test results are shown in Chapter 4.

### 1 Introduction

SP has been commissioned by One Foot AS in Oslo Norway to perform test of a miniski according to SS-EN 71-1.

### 2 Test object

Description:	Ski made of plastics that is secured to foot by plastic adjustable straps. The straps are mounted to the ski with metal screw, washer and locking nut according to the mounting instruction. Every Miniski comes in a cardboard with loose straps in a plastics bag with mounting instruction. The packaging is marked with company name and CE-mark. See also photos 1-3 below.
Designation:	Miniski, blue and orange colour
Material:	Moulded plastics
Measures and weight:	Length x width: 720 x 152 mm. Weight: 860 g.
Piece:	2 pieces
Selection of test object:	Performed by the client without SP's assistance
Arrival of test object to SP:	2012-12-04 and 2013-02-02

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#### SP Technical Research Institute of Sweden

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Photo 1 Miniski with packaging



Photo 2 Straps

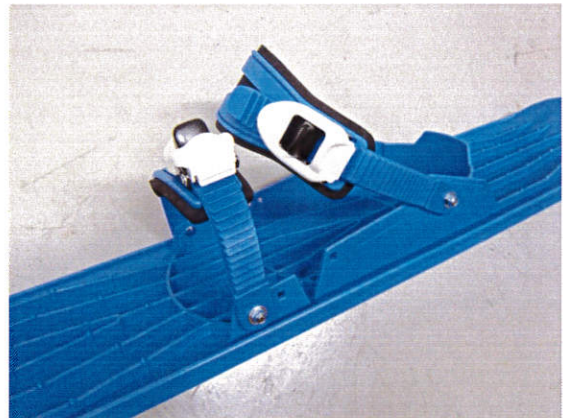


Photo 3 Mounted miniski

### 3 Testing method and testing procedure

Testing method: SS-EN 71-1:2011 Safety of toys – Part 1: Mechanical and physical properties.  
 Test date: 2012-01-22—24 and 2013-02-04  
 Place of testing: Laboratory of Building Technology and Mechanics, SP in Borås, Sweden.

Table 1 Testing procedure

Paragraph	Testing procedure
4.1	Material cleanliness on the toy was examined visually to be clean and free from infestation.
4.2	Examine if the toy is intended to be assembled. If, examine for detailed assembly instructions, if appropriate and if it is to be mounted by a child or by an adult.
4.7	Examination of test object for hazardous sharp edges and if the edges present an unreasonable risk of injury taking into account the foreseeable use of the object.
4.8	Examination of test object for hazardous sharp points and if the points present an unreasonable risk of injury taking into account the foreseeable use of the object.
4.15.1.2	Examine if the test object intended to bear a child has instructions for use, assembly and maintenance. The potential dangers of using the toy and precautions to be taken shall be brought to the attention of the user. If the test object is not suitable for use by children of 36 months and older it shall carry a warning according to 7.16.
4.15.1.3	Static strength - Examine that the test object conforms to relevant requirements of EN 71-1 and no accessible hazardous sharp edges, sharp points are produced or that the test object collapses or makes driving mechanism accessible that present a hazard of crushing the fingers or other parts of the body when loading the test object with a weight for 5 minutes. Dynamic strength - Examine that the test object conforms to relevant requirements of EN 71-1 and no accessible hazardous sharp edges, sharp points are not produced or that the test object collapses or makes driving mechanism accessible that present a hazard of crushing the fingers or other parts of the body when driven the object to a non-resilient step, 50 mm high, three times in a speed of 2 m/s ±0.2 m/s.
4.15.1.4	Examine if the test object loaded with a weight tip over when placed on a slope 10 ° ± 1°.
6	Packaging of flexible plastic foil that have opening perimeter ≥380 mm shall have average thickness of ≥0.038 mm of be perforated ≥1 %. Packaging in form of spherical shape are not allowed to pass through template E (small ball template with diameter 44.5 mm) or if the sphere do not divide after torque- or tension test.


Paragraph	Testing procedure
7	Examination that the test object, its packaging or on an accompanying leaflet shall have easily legible and indelible form a CE-mark $\geq 5$ mm high and his name and/or trade name and/or mark and address.
7.1	Examination that the test object must be accompanied by appropriate clearly legible warnings. The warning/s shall be preceded by the word warning/s. Warning which determine the decision to purchase the toy shall appear on the consumer packaging or be otherwise clearly visible to the consumer before purchase.
7.2	Examination that the test object intended for children over 36 months must have an age warning and brief indication of the specific hazard calling for this restriction. The brief indication of specific hazard may appear in a leaflet or in the instructions for use.  The age warning should be either a phrase “Warning. Not suitable for children under 36 months/3 years” or an age-warning symbol and shall be legible at the point of sale of the product and shall appear either on the toy itself or its packaging. The age warning symbol shall have a red circle and stroke and have a diameter of at least 10 mm. The symbol shall be used to indicate only “0-3” years.
7.10.4	The instructions for use of toys intended to bear the mass of a child shall contain: <ul style="list-style-type: none"> <li>• Examples of safe riding areas</li> <li>• a recommendation for adult supervision of young children</li> <li>• instructions to be given to the child in the proper use of the toy</li> <li>• a reminder that the toy should be used with caution since skill is required to avoid falls or collisions causing injury to the user or third parties.</li> </ul> <p>If the toy carries a warning regarding protective equipment, some indication shall also be given in the instructions for use with regard to recommended protective equipment.</p>

## 4 Result

The result of this testing is presented in Table 2 below. One sample was tested. The results that are presented in this report refer only to the tested sample.

Table 2 Result

Paragraph	Fulfil / Do not fulfil the requirement	Note
4.1	Fulfils the requirement	Clean and free from infestation.
4.2	Fulfils the requirement	The instruction has information that an adult shall mount the product.
4.7	Fulfils the requirement	
4.8	Fulfils the requirement	

4.15.1.2	Fulfils the requirement	
		<p>Static strength was made. The load was 100 kg simulating two children over 36 months. The weights were placed in middle and outermost of the ski.</p> <p>Dynamic strength was not assessed to be relevant to test.</p> <p>The straps were loaded with 100 kg for 5 min, see photo 4 below.</p> 
4.15.1.3	Fulfils the requirement	
4.15.1.4	Fulfils the requirement	
6	Fulfils the requirement	
7	Fulfils the requirement	CE-mark, name and address is on the packaging and the mounting instruction.
7.1	Fulfils the requirement	The packaging has information about safety.
7.2	Fulfils the requirement	Age-warning and brief indication of specific hazard calling for restriction for children under 36 months is on the packaging and on the mounting instruction.
7.10.4	Fulfils the requirement	Example of safe riding areas, adult supervision of young children, proper use of toy and to be used with caution is on the mounting instruction.

## 5 Measurement uncertainty

The total calculated measurement uncertainty at determination of measured force is <2.5 %, weights <0.5%, torque <0.5 %, kinetic energy <0.01 J, length (measuring calliper 150 mm) <0.05 mm and length (measuring tape 3 m) <0.5 mm. The reported uncertainty has been calculated by quadratic addition of the actual standard uncertainties. The combined standard uncertainties have then been multiplied with coverage factor  $k = 2$  to receive an approximate 95 % confidence interval.

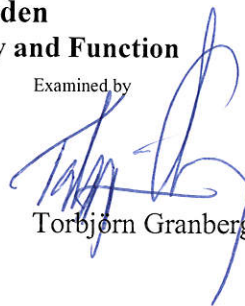
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