

# INTERNATIONAL SKATING UNION

## Communication No. 1726

### SHORT TRACK SPEED SKATING RINK BOARD PADDING AND SAFETY FOR SKATERS

(This Communication replaces ISU Communications 1019 and 1512)

Taking into account the experience gained since the implementation of ISU Communication 1019 and subsequently ISU Communication 1512, the ISU Council decided to update the Guidelines relating to the Rink Board Padding (hereafter called “Padding”) in Short Track Speed Skating by establishing different levels of Guidelines for different Events/competitions as follows:

- A. THE OLYMPIC WINTER GAMES, WINTER YOUTH OLYMPIC GAMES, ISU CHAMPIONSHIPS, ISU WORLD CUP COMPETITIONS AND OTHER ISU EVENTS AS DECIDED BY THE ISU COUNCIL**
- B. OTHER INTERNATIONAL COMPETITIONS INCLUDING THE JUNIOR AGE CATEGORIES A AND B<sup>1</sup> BUT NOT INCLUDING THE JUNIOR AGE CATEGORIES C AND D.**
- C. INTERNATIONAL COMPETITIONS FOR THE JUNIOR AGE CATEGORIES C AND D**

The detailed Guidelines for the above-mentioned categories are as follows:

- A. FOR THE OLYMPIC WINTER GAMES, WINTER YOUTH OLYMPIC GAMES, ISU CHAMPIONSHIPS, ISU WORLD CUP COMPETITIONS AND OTHER ISU EVENTS AS DECIDED BY THE ISU COUNCIL**

**1. Minimum specifications for traditional not moveable Padding (for the Olympic Winter Games see ISU Special Regulations Short Track Speed Skating, Rule 280, paragraph 5):**

- a) Size of the Padding:** Height 120 cm; Length 200 cm; Width, 40 cm up to 60 cm.
- b) Inside structure of the Padding:** composed of layers of different foam densities and two rows of alternate “open cell spaces” (also described as vacant, internal, air-spaces running from the bottom to the top of the Padding) or similar solutions.

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<sup>1</sup> For ISU Speed Skating Junior age categories please refer to the 2010 ISU Regulations, Rule 108/1.c)

- c) **Padding cover:** composed of a soft (even at cold temperatures), anti-abrasive and water resistant synthetic material with a vented top-edge that, upon impact, can permit immediate exhaust of the air contained in the open cell spaces within the Padding.
- d) **Banner attachment strips:** for easy attachment of commercial banners, provide soft Velcro strips of 3 cm width placed length-wise at 10 cm from the top and 10 cm from the bottom of the Padding.
- e) **Material to cover the joint where two Padding pieces come together:** an overlapping Velcro strip of 10 cm shall cover the joint between two Padding parts to present a smooth exterior surface. This recommendation applies also to the moveable, self-standing Padding.
- f) **Placement of Padding:** place the Padding so as to cover all rink-board surfaces, with the weight of the Padding resting on the surface of the ice, attached to the rink-boards and to the adjoining Padding. Alternative solutions by using smaller Padding on the straights starting at the middle of the straight up to the entry of the curve can be accepted for international competitions.

## 2. Minimum specifications for moveable self-standing Padding (mandatory for the Olympic Winter Games as per ISU Special Regulations Short Track Speed Skating, Rule 280, paragraph 5)

- a) **Size of the Padding:** Height 120 cm; Length 200 cm; Width, 60 cm up to 110 cm.
- b) **Inside structure of the Padding:** composed of layers of different foam densities and two rows of alternate “open cell spaces” (also described as vacant, internal, air-spaces running from the bottom to the top of the Padding) or similar solutions.
- c) **Padding cover:** composed of a soft (even at cold temperatures), anti-abrasive and water resistant synthetic material with a vented top-edge that, upon impact, can permit immediate exhaust of the air contained in the open cell spaces within the Padding.
- d) **Banner attachment strips:** for easy attachment of commercial banners, provide soft Velcro strips of 3 cm width placed length-wise at 10 cm from the top and 10 cm from the bottom of the Padding.
- e) **Material to cover the joint where two Padding pieces come together:** an overlapping Velcro strip of 10 cm shall cover the joint between two Padding parts to present a smooth exterior surface.
- f) **Base dimensions:** a minimum of 20 cm and a maximum of 40 cm resting on a smooth ice surface with no obstacles or sharp edges underneath the Padding.
- g) **Size of the ice rink within the moveable Padding:** to conform to the ISU Rules by proper positioning of the moveable Padding.
- h) **Movement on impact:** Padding to be fixed to inhibit a fallen skater from passing underneath the Padding on impact. On impact, the Padding should only move up to 20 cm toward the outside of the ice rink. The use of posts for entry and exit doors as well as to fix the moveable Padding should be reduced to a minimum and if possible not be located at the exit of the curves.
- i) **Padding control tension:** the belts or any other Padding that is used to control the movement of the Padding should be in place and controlled continuously.
- j) **Control personnel:** are to be available for re-positioning the Padding in their original position after movement due to impact.

### **3. Test to identify whether manufactured Padding has achieved the standards of the new elaborated specifications**

a) The following testing procedure will allow uniform measurements throughout the world of the impact-absorption qualities of proposed new Padding to check that such Padding would actually be an improvement.

The test shall consist of:

i) A mechanical drop test performed on a 40 cm wide test Padding with a cylindrical drop mass of 32 kg (20 cm diameter, 14,5cm height);

ii) Several trials at each drop height of 1, 2, 3 and 4 meters are to be performed;

iii) An accelerometer attached to the drop mass will measure the acceleration of the mass upon impact with the Padding;

iv) The peak values of each of the accelerations and the impact forces will be recorded with the average of such values as the final result.

b) One testing Padding of 40 cm width with the following specifications or two mats with the following specifications will set the basis “zero” of the testing equipment and software

i) 12cm of 22,40 kg/m<sup>3</sup> density open cell foam (front layer);

ii) 8cm of 32,04 kg/m<sup>3</sup> density closed cell foam;

iii) 12cm of 22,40 kg/m<sup>3</sup> density open cell foam;

iv) 8cm of 32,04 kg/m<sup>3</sup> density closed cell foam.

c) It is recommended in the design and construction of any new proposed Padding that researchers and developers of the new Padding adopt an aggressive goal of 30% minimum improvement compared to the basis “zero”.

d) It is essential that not only the reduction of the bounce back effect is taken into consideration but that also a soft impact and consequent reduction of the impact force is guaranteed.

### **4. Alternative Padding/Safety Measures**

Other types of Padding and/or materials and/or inside structures may be used as long as the drop test results as explained in paragraph 3.a), or other valid objective engineering evaluations, produce equal or better results than those indicated above. The ISU would appreciate to receive the results for evaluation purposes in relation to other processors-parties.

## **5. Implementation/Compliance for the Olympic Winter Games, Winter Youth Olympic Games, ISU Championships, ISU World Cup competitions and other ISU Events as decided by the ISU Council**

- a) In order to control and ensure compliance, the ISU has established the following procedures during the application/allotment phase:
  - i) The ISU may do surveys of the Padding that will be used by the organizers for all the provisionally allotted ISU Championships of the seasons 2012/13 and 2013/14 as well as for the Olympic Winter Games 2014. The ISU reserves the right to proceed with inspection visits to organizers who provide inadequate or insufficient information relating to the Padding that is intended to be used.
  - ii) Members applying for future ISU Events, the Olympic Winter Games and the Winter Youth Olympic Games must provide specific information of the Padding that is planned to be installed and must confirm in writing that if receiving the allotment, they confirm to install Padding complying with the minimum specifications stated above. This information and confirmation to be provided at the time of the application for an ISU Event will become a key factor for the allotment of ISU Events.
  
- b) In the case of no-compliance and/or open questions the ISU reserves the right to take the following steps:
  - i) If the organizing Member of an ISU Event and/or the Olympic Winter Games and/or the Winter Youth Olympic Games is not providing the required information as indicated in paragraph 5.a)ii) above and/or the ISU has reasonable knowledge that the minimum specifications outlined above are not met and the organizing Member is not taking the necessary steps, the ISU can:
    - (i) Require the replacement of the planned Padding by a Padding complying with the above-mentioned minimum specifications;
    - (ii) Evaluate and proceed with the allotment of an already allotted ISU Event to another ISU Member (not applicable for the Olympic Winter Games and Winter Youth Olympic Games).
  - ii) If despite previous assurances and controls it is determined shortly before the beginning of an ISU Event and/or the Olympic Winter Games and/or the Winter Youth Olympic Games that a different Padding is in place which is not in compliance with above-mentioned minimum specifications, then the Short Track Speed Skating Technical Committee Representative (at World Cups) or the ISU Representative (at ISU Championships) or the ISU Technical Delegates (at the Olympic Winter Games/Winter Youth Olympic Games) in consultation with the Chief Referee(s) of the Event can:
    - (i) Demand, if still possible, that the Padding is replaced immediately with a Padding in compliance with the above-mentioned specifications. If such replacement is possible, training sessions shall not commence until the new Padding is in place. All the costs for the replacement of the Padding are at the organizer's expense.
    - (ii) Depending on the Padding in place and for borderline cases only like for example "Alternative Padding" as per paragraph 4 above, demand after careful evaluation that the organizing Member furnishes a written and duly signed guarantee confirming under its full and direct responsibility that the Padding in place is ensuring adequate protection at the same level as a Padding complying with the above-mentioned minimum specifications.
    - (iii) Cancel the ISU Event if the Padding that is deemed insufficient cannot be replaced in due time by a Padding which is meeting the above-mentioned specifications and

if the above-mentioned guarantee as per sub-paragraph (ii) cannot be obtained. The organizing Member of a cancelled ISU Event is responsible to reimburse all the travel and accommodation expenses for all the participants as well as all ISU Officials in attendance. The ISU may also ask for the reimbursement of the ISU contribution payments already made to the organizing Member and charge the organizing Member of the concerned ISU Event for the loss of income (TV and/or sponsorship) or any already sustained costs in relation to the cancelled ISU Event. In case of an ISU request the organizing Member is bound to reimburse to the ISU the total amount within 1 (one) year.

- iii) All organizing Members/organizers shall take all appropriate safety precautions and, in addition, procure sufficient liability insurance covering the competitions. The ISU assumes no responsibility for, or liability with respect to, bodily or personal injury or property damage incurred in connection with sanctioned competitions (See ISU Regulations, Rule 119, paragraph 2 and Rule 140, paragraph 1-4).

## **B. OTHER INTERNATIONAL COMPETITIONS INCLUDING THE JUNIOR AGE CATEGORIES A AND B<sup>2</sup> BUT NOT INCLUDING THE JUNIOR AGE CATEGORIES C AND D.**

The same specifications as per Paragraph A.1-4 above are strongly recommended. However, the responsibility for a proper implementation/compliance with the specifications lies with the organizing Member while the decision to conduct the competition remains with the Chief Referee(s) on site at the time of the competition.

## **C. INTERNATIONAL COMPETITIONS FOR THE JUNIOR AGE CATEGORIES C AND D**

Members organizing International Competitions for Junior C and Junior D skaters only (see Rule 108, paragraph 1.c) may provide Padding based on the following recommended specifications (basically as per previous ISU Communication 1019):

### **1. The minimum material specifications are as follows:**

Padding shall be a composite Padding, closed cell foam and open cell foam. The open cell foam is applied due to its superior ability to decrease impact forces.

7,62 cm (3 inch) of 32.04 kg/m<sup>3</sup> (2 lb/ft<sup>3</sup>) density closed cell foam

12.70 cm (5 inch) of 22,43 kg/m<sup>3</sup> (1.4 lb/ft<sup>3</sup>) density open cell foam (front layer)

the Padding should be 20.32 cm (8 inch) thick

the height of the Padding should be equal to the rink boards

each piece of Padding should be at least 2.13 m (7 ft) long.

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<sup>2</sup> For ISU Speed Skating Junior age categories please refer to the 2010 ISU Regulations, Rule 108/1.c)

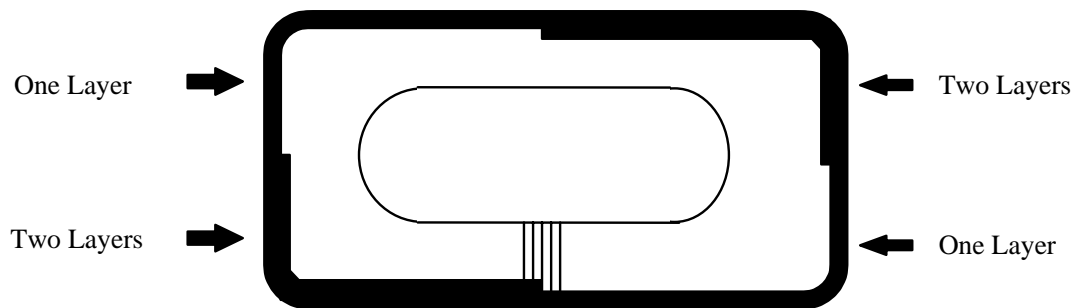
## 2. Cover

The Padding should be covered by a vinyl covering with a smooth texture, low coefficient of friction, and excellent tear resistance.

For commercial or information purposes, covers may be added to the Padding, provided that they are of similar quality material (in order to maintain the protective function of the Padding) and provided that they are in compliance with commercial agreements.

## 3. Placement

Padding shall be placed so that they are perpendicular to the rink boards and do not have a sloped or angled outer surface. Padding must be attached to the boards and to each other. Padding must lie with their weight on the ice. Padding must completely cover the rink board surface and be two layers in the indicated areas. The open cell foam side of the Padding must be on the ice side and the closed cell foam side of the Padding must be on the board side.



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## D. ISU SUPPORT TO ACQUIRE PADDING

In exceptional cases the ISU may grant financial support for the acquisition of Padding. Please refer to ISU Communication 1531 (ISU Development Program), paragraph IV.A.1.d).

Milano,  
May 9, 2012  
Lausanne,

**Ottavio Cinquanta**, President

**Fredi Schmid**, Director General