International Floorball Federation

Material Regulations

Certification Rules for IFF-marking of
Floorball Equipment SPCR 011

Edition 2014

Interpretation of the Material Regulations.
In order to clarify some of the paragraphs in the Material Regulations, IFF and SP has in cooperation built a few interpretations where it for different reasons has been seen to be necessary.
All previous interpretations dated December 29 2010 and November 19 2012 have been incorporated in present ruling of the Material Regulations.

If the need to interpret Material Regulations between two editions occurs, can this be done 2 times / year (in May and December).

Valid from July 1, 2014

1.3.2 Marking

Marking is to contain the certification mark ……

XXXXXX = The certification- or family certification- number of the stick.
YY = The manufacturing year.
E.g. 105804/06
Products that have been certified and began production of the period October to December are permitted to be labelled with the following year marking.

1.3.2.1 Marking of stick

Stick manufactures are allowed to print the certification mark as a part of the Brand name / Model name sticker / print. The brand name in question shall be included as a prefix- or a suffix in the name of the stick and the blade shall be marked accordingly with the brand name. The sticker / print must be …….

1.3.2.4 Embossed mark for blades, balls and masks

Ball
The IFF-mark has to be shown as an embossed marking on the ball. The font size has to be readable. All new moulding tools for ball have to adopted the new marking requirement not later than 1st of July 2008, see also point 2.2.7. Companies have to gradual replaces the old embossed IFF logo, the final date is set to June 30 2016.

Mask
The IFF-mark has to be shown as an embossed marking stamped onto a metal plate and welded/ hard-soldered to the net on the left side of the mask.
The font size has to be readable. Companies have to adopted the new marking requirement not later than 1st of July 2014, see point 2.5.3. Companies can apply for an exemption from the new marking for a period of maximum two years.

1.3.2.6 Uniformed stick measurement

The length of the stick has to be uniformed. The length to be communicated to the customers is the length of the stick measured as described in appendix 1 point 5.2.4. Companies have to adopted the new marking requirement not later than 1st of July 2012, see point 2.1.1. Make sure that all new sticks produced after July 1 2014 is carrying the new uniformed stick measurement.

1.3.2.7 Non-acceptable brand names / model names

To avoid misunderstandings / incorrect market advantages, etc. of words or expressions that can be, without a specific IFF permission, perceived as the IFF agrees / favours one product before others. A list of non-acceptable words or expressions is to be introduced.
The listing is not comprehensive, so in case of any doubt contact the IFF for a statement.

International Floorball, IFF, WFC, World Championship, Euro Championship, Asia Championship, World Floorball, Tournament, Global, Recommended, Game, etc.

1.9 Rules for current license holders before new certificates can be issued

Current license holders must take responsibility for outstanding debt related to both testing / certification and the IFF-marking system, before the new or revised certificates can be issued.

2.1.1 Stick Design

In order to ……
…….. in point 1.3.2.6 and appendix 1 point 5.2.4.
The stick blade main construction and outermost surface is to be produced in thermoplastic materials without fillers or reinforcements such as e.g. milled fibres. This is to ensure that the blade does not damage the playing surface. It is permissibly to use colour pigments. Anti-oxidants, UV-absorbing additives etc. can also be used to prevent polymer degradation.
The blade construction can consist of other plastic materials/laminates than the used thermoplastic materials. The other plastic materials/laminates are to be centred in the middle of the blade, and may not be placed closer to the blade edge (playing surface) than the thickness of the lower blade frame or a minimum distance of 4 mm. This is to ensure that the playing surface is not damaged when the blade material is worn out. Make sure that the other plastic materials/laminates will be well anchored (moulded) into the surrounding blade structure and that all the edges are protected.
The other plastic materials/laminates are limited to 1/3* of the blades total area*, but shall not cover the entire upper part of the blade horizontally. The ability to twist and hook the blade must be maintained. Otherwise it can be placed where the manufacturer choose. (see appendix 26).
The largest single open area of the other plastic materials/laminates is limited to 5 cm^2. The other plastic materials/laminates may have a larger total area but then need to be covered with one or more blade grooves; so no single open areas are exceeded.
The other plastic materials/laminates should always be protected by a surrounding thermoplastic material and may never be the outermost material, which first comes in contact with the ball, another stick, etc. either on the forehand or backhand side.
The limitations will protect the playing surface, secure the blade to be able to twist when stepped upon and also allow hooking of the blade.
The blade is to have embossed prints. The marking is to be of such proportions and design that the information is clearly visible and is not removed under play. The print size may not be less than 5 mm in height. The embossed print is to be uncoloured.

* The manufacturer has to provide the test house the blade's total area and the area of other plastic materials/laminates used in the blade. Preferably by a calculation performed via the CAD-program and shown in the drawing.

2.1.3 Stick Dimensions

***** It is still legal to use a 10 mm wide grip line marking.

2.1.4.1 Shaft Rigidity Method A (sticks 850mm or longer)

The shaft should deflect by at least 23 mm under a load of 300 N measured as mean value of three deflections in each direction (horizontal and vertical). No individual value may be less than 17 mm for the most rigid direction of the shaft. The shaft should and tolerate a deflection of at least 60 mm in the most flexible direction without cracking or fracturing. The shaft's resulting deformation following deflection should not exceed 6 mm.

2.1.4.2 Shaft Rigidity Method B (sticks 650mm to 849mm)

The shaft should deflect by at least 10 mm under a load of 300 N measured as mean value of three deflections in each direction (horizontal and vertical). No individual value may be less than 8 mm for the most rigid direction of the shaft. The shaft should and tolerate a deflection of at least 30 mm in the most flexible direction without cracking or fracturing. The shaft's resulting deformation following deflection should not exceed 3,5 mm.

2.1.5 Shaft and Blade Impact Strength

Shaft: Visible cracks or fractures should not occur.
Blade: Visible cracks, fractures, loose parts or parts that fall away from the blade should not occur.

2.1.7 Blade Discoloration onto Playing Surface

Discoloration on the playing surface should be no more than 10%. The discoloration shall be easily removed with the help of paper, water and simple cleaning agent. The lacquered surface may have a slightly matt finish.

2.1.8 Blade Torsion Strength

Visible cracks, fractures, loose parts or parts that fall away from the blade should not occur.

2.5.3 Face Mask Net Marking

In order to avoid the mask net is changed to a non-approved net, the net is to have a negative IFF embossed marking. The IFF-marking is to be stamped onto a metal plate and welded/ hard-soldered to the net, placed on the left side of the mask. The marking is to be of such proportions and design that the information is clearly visible and is not removed under play.

Methods for Verification of Equipment Criteria for Floorball

Method Description

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Issued 2013-05-03
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5.2.4.3 Implementation

Stick dimensions are measured according to appendices 15 and 16.
The blade's concavity depth is measured by placing the measuring device perpendicular to the lower edge radius. This is repeated along the entire length of the blade and the largest concave depth is recorded.

5.2.6 Impact Strength

5.2.6.1 Equipment

Drop hammer with a weight of 350± 10 g. The head is to be of hardened steel and have a shape of a prism with triangular profile and with a longitudinal axis oriented horizontally - perpendicular to direction of hammer movement. The bottom edge of the prism is to be a shape of semi-circle with a radius of 7 mm. A stand with a drop height of 1000 ± 5 mm, from where the hammer is to be able to fall freely. A mechanism for repeat releasing of the drop hammer. Test holder of aluminium or steel and designed as a V-block with a length of 150 mm and inner 90° angle, with sufficient depth to enable the shaft to lie in the dip and not on the edges. A flat surface of thick aluminium or steel is to be used for the blade test.

5.2.6.2 Samples

Three shafts and three blades. Those shafts tested as per point 5.2.5, where fracturing or any type of deformation did not occur can, in theory, be used for impact testing.

5.2.6.3 Implementation

The testing is carried out in two places on the shaft, 700 mm from the end of the shaft, and 40 mm from the blade attachment. The shaft is placed in the holder with the point of the stick blade vertical. The drop hammer is released from a height of 1000± 5 mm towards a point both 700 mm from the end of the shaft and 40 mm along the shaft taken from the blade attachment. The test is carried out on 3 shafts (appendix 18).
The blade is placed vertical by using support blocks and when placed flat on the surface. The drop hammer is released from a height of 1000± 5 mm towards a point in the middle of the blade's top edge and when in the centre of the blade. The test is carried out on 3 blades.

5.2.6.4 Results

The falling hammer could make a little spherically shaped imprint on the tested surface of the shaft and blade. This kind of imprint is permissible, if neither visible cracks nor fractures occur.
Any cracks, fractures, loose parts or parts that fall away from the blade are to be reported.

5.2.8 Blade Discoloration onto Playing Surface

5.2.8.1 Equipment

Pendulum apparatus, described in appendix 19. The mass of the bar, weight and test bit are to be such that the energy the stopping disc is met with is 36± 1 Nm. The spring constant C is $3.5 \cdot 10^4$ N/m. Lacquered sport parquet and Gerflor Taraflex to be at least as high and at least as wide as the stopping disc. The sport parquet construction: At the bottom 6 mm plywood, intermediate layer 12 mm ribbed pinewood sheeting, wearing course 3.6 mm beech and five layers UV-hardened lacquer, Proteco (E.g. Tarkett Sport). Gerflor Taraflex construction: PVC sheets reinforced with fibreglass grid.

5.2.8.2 Samples

Three stick blades. The end of the blade truncated to length of 100 mm.

5.2.8.3 Implementation

The test bit is permanently mounted on the pendulum so that the end blade, when lowering the pendulum, moves towards the flooring sample 1/3rd from the top edge of the disc. The pendulum is released from an upright position. The flooring sample is inspected with regard to discoloration – the European scale for colour coding is used as a colour reference. Three tests on each flooring samples are carried out; replacing the flooring sample or movement in the horizontal axis following each impact. Clean the flooring samples with water, a simple cleaner and paper before examination.

5.2.8.4 Results

Occurrence of discoloration onto the flooring samples are reported.

5.2.9 Blade Torsion Test

5.2.9.1 Equipment

An equipment to firmly secure the blade in the vertical position. An adjustable device that can be fitted over and cover the blade nose. A lever arm attached to the device as an aid when blade nose is to be twisted (as a lever, a torque wrench can be used), and a protractor.

5.2.9.2 Samples

Three stick blades.

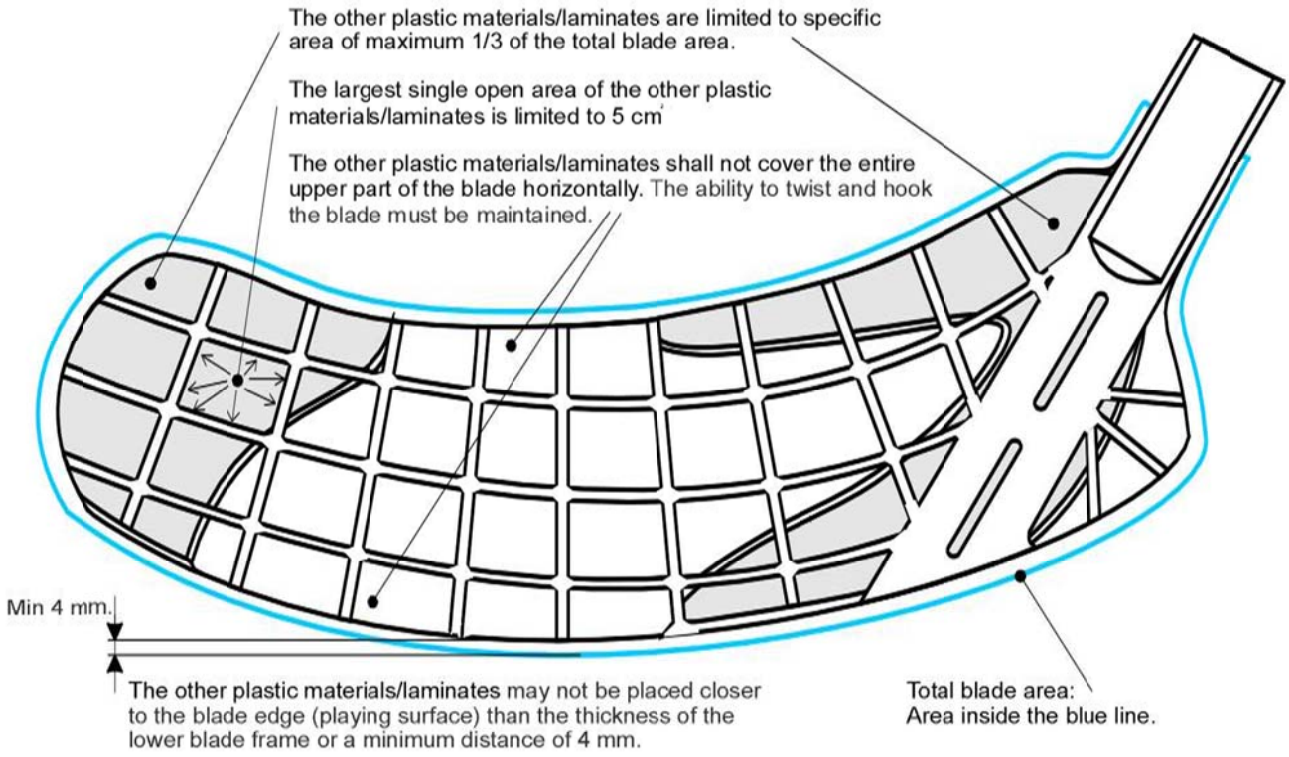
5.2.9.3 Implementation

Mount the blade vertically, as close as possible to the shaft attachment point. Mount the adjustable device over the blade nose and adjust so that there is no clearance. Twist the blade to an angle of 30°,
check with the protractor. The test is carried out on 3 blades.

5.2.9.4 Results

Occurrence of visible cracks, fractures, loose parts or parts that fall away from the blade is reported.

Description	Limeted area of other plastic materials / laminate	Appendix 26



The drawing is just showing an example of possible placement of the other plastic material / laminates.

Drawn by	Inspected by	Approved by	Remarks	Replaces	Version
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Title

Stick Blade Limeted Area

Drawn: 130523

Drawing no.: **SPCR 011-26e**