

# Testing and Certification for Footballs

# IMS

# INTERNATIONAL MATCHBALL STANDARD™

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## Introduction

In March 1995 the International Football Association Board decided to adopt compulsory testing and marking for footballs to be used in FIFA and Confederation Matches. FIFA and Confederation Matches are all competitions played under the authority of FIFA or Confederations recognized by FIFA as listed on pages four and five.

The Law II of the Game requires that footballs eligible for FIFA and Confederation Matches will have to meet minimum standards. Such footballs have to be tested, certified and marked with one of the FIFA Quality Concept logos or the reference "IMS International Matchball Standard".

The created FIFA Ball Quality Concept logos, FIFA APPROVED and FIFA INSPECTED, are part of the licensing scheme. As an alternative there is the possibility to use the wording "IMS International Matchball Standard" which is not subject to a license fee.

The testing and certification for the FIFA Quality Concept permitting footballs for use in the FIFA and Confederation Matches and allowing the use of the FIFA Marks will be exclusively executed by EMPA, a neutral Swiss test institute. Testing procedures and handling are specified in a separate FIFA Quality Concept Document. Testing and certification for "IMS International Matchball Standard" will be carried out by other neutral test institutes selected by FIFA.

This guide contains information about the defined criteria for the minimum standards for "IMS International Matchball Standard". Furthermore, it includes the guidelines about the certification for the "IMS International Matchball Standard" category.

## FIFA and Confederation Matches

### FIFA Matches

FIFA competition matches are defined as all qualification and final round matches of the

- FIFA World Cup™
- FIFA Women's World Cup
- FIFA Club World Cup
- FIFA Confederations Cup
- FIFA U-20 World Cup
- FIFA U-20 Women's World Cup
- FIFA U-17 World Cup
- FIFA U-17 Women's World Cup
- FIFA Futsal World Cup
- FIFA Beach Soccer World Cup
- Men's Olympic Football Tournament
- Women's Olympic Football Tournament
- Youth Olympic Football Tournament
- Blue Stars /FIFA Youth Cup

### Confederation Matches

Competition matches under the auspices of the confederations are defined as all matches played in the context of continental competitions.

- 1. AFC (Asian Football Confederation)**
  - [www.the-afc.com](http://www.the-afc.com)
- 2. CAF (Confédération Africaine de Football)**
  - [www.cafonline.com](http://www.cafonline.com)
- 3. CONCACAF (Confederación Norte-/Centroamericana y del Caribe de Fútbol)**
  - [www.concacaf.com](http://www.concacaf.com)
- 4. CONMEBOL (Confederación Sudamericana de Fútbol)**
  - [www.conmebol.com](http://www.conmebol.com)

**5. UEFA (Union of European Football Association)**

- [www.uefa.com](http://www.uefa.com)

**6. OFC (Oceania Football Confederation)**

- [www.oceaniafootball.com](http://www.oceaniafootball.com)

## Certification Procedures for “IMS International Matchball Standard”

The following guidelines explain the procedures to obtain certification for the football denomination “IMS International Matchball Standard”.

- manufacturers select the institute they prefer to have the tests performed amongst the institutes designated by FIFA
- manufacturers provide test institute with documents outlined in the terms & conditions
- manufacturers submit to test institute number of footballs required by the test institute
- manufacturers pay the test fee charged by the test institute
- test institute will communicate test results to the manufacturers
- test institute will communicate positive test results to FIFA
- balls which have met the minimum requirements and which may be used in FIFA and Confederation Matches must be marked with the official word mark “IMS International Matchball Standard” as per the Graphic Guidelines provided by the test institute.
- each ball certification has a validity of 2 years (any material change of a certified ball model - renaming or different design/color excluded - is subject to re-testing).

## Test Criteria for “IMS International Matchball Standard”

### OUTDOOR FOOTBALL TEST CRITERIA

The minimum requirements for footballs for “IMS International Matchball Standard” are defined as follows:

	Criteria for International Matchball Standard		Specifications
	Ball Size 5	Ball Size 4	
<b>Weight</b>	410 - 450 grams	350 - 390 grams	ball pressure: 0.8 bar
<b>Circumference</b>	68.0 - 70.0 cm	63.5 - 66.0 cm	ball pressure: 0.8 bar
<b>Sphericity</b>	max. 1.8 %	max. 1.8 %	ball pressure: 0.8 bar
<b>Loss of Pressure</b>	25%	25%	ball pressure: 1.0 bar at start of the test max. loss of air after 3 days (72 h)
<b>Water Absorption</b>	average water uptake of the initial weight of the tested balls: 15%  max. water uptake per ball not to exceed 20%	max. water uptake of the initial weight of the tested ball: 15%  max. water uptake per ball not to exceed 20%	ball pressure: 0.8 bar tank filled with water 2 cm height 250 compressing downs with constant ball rotation, ball deformation max. 25%
<b>Rebound</b>	at 20°C: 125 - 155 cm at 5°C: min. 115 cm max. difference between lowest and highest rebound per ball tested: 10 cm	at 20°C: 115 - 155 cm at 5°C: min. 115 cm max. difference between lowest and highest rebound per ball tested: 10 cm	ball pressure: 0.8 bar balls being dropped 10 times (on to different panels) from a height of 2 meters on to a steel plate

Tests will be conducted at room temperature (approx. 20°C) and 65% humidity.  
Exception: Rebound measured at 20°C and 5°C.

Test criteria and test methods for “IMS International Matchball Standard” are equal to FIFA INSPECTED quality level.

### **FUTSAL FOOTBALL TEST CRITERIA**

No Feltballs are being permitted for international matches

<b>Property</b>	<b>IMS</b>	<b>Specifications</b>
<b>Weight</b>	400 - 440 grams	ball pressure: 0.6 bar
<b>Circumference</b>	62.0 - 64.0 cm	ball pressure: 0.6 bar
<b>Sphericity</b>	max. 1.8 %	ball pressure: 0.6 bar
<b>Loss of Pressure</b>	max. 25 %	ball pressure: 0.6 bar at the start of the test max. loss of air after 3 days (72h)
<b>Rebound</b>	50 - 65 cm	ball pressure: 0.6 bar each ball being dropped from a height of 2 meters onto a wooden floor
<b>Balance</b>	max. 7.5°	ball pressure: 0.6 bar ball being rolled down an inclined slope onto a table with predetermined rolling direction / angle deviation of rolling direction is measured.

Tests will be conducted at room temperature (approx. 20°C) and 65% humidity.

### **BEACH SOCCER BALL TEST CRITERIA**

(Ball pressure : mean value of indicated pressure range between 0.375 – 0.8 bar)

<b>Property</b>	<b>IMS</b>	<b>Specifications</b>
<b>Weight</b>	400 - 440 grams	ball pressure: mean value
<b>Circumference</b>	68 - 70 cm	ball pressure: mean value
<b>Sphericity</b>	max. 1.8 %	ball pressure: mean value (deviation of the measured mean value)
<b>Loss of Pressure</b>	max. 25 %	ball pressure: mean value at the start of the test max. loss of air after 3 days (72h)
<b>Rebound</b>	100 - 150 cm	ball pressure: mean value each ball being dropped from a height of 2 meters onto a steel plate
<b>Water Absorption</b>	max. 15 %	ball pressure: mean value

Tests will be conducted at room temperature (approx. 20°C) and 65% humidity.

## List of Test Institutes for “IMS International Matchball Standard”

Listed below are the two selected test institutes which are currently entitled to perform the tests according to the requirements for “IMS International Matchball Standard”.

### **PFI Germany**

#### **Member of PFI Group Test and Research Institute**

Marie Curie Straße 19  
D - 66953 Pirmasens

Mrs. Barbara Keller

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e-mail [barbara.keller@pfi-germany.de](mailto:barbara.keller@pfi-germany.de)

### **CSI S.p.A.**

#### **Certification for Safety Institute**

Viale Lombardia n. 20  
I - 20021 Bollate (MI)

Mr. Paolo Monticelli

Tel. +39 0238 3302 39

Fax +39-0238 3302 88

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