



International
Handball
Federation

a) Ball Regulations

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ARTICLE 1

I. General Principles

These Regulations are to define the IHF criteria for handballs which have to be met. In addition, the criteria concerned apply for the handball to be provided with the IHF seal of approval.

There are two categories of IHF approval.

IHF APPROVED PRO: for all official IHF matches as well as other international and elite level national matches.

IHF APPROVED: for all elite level national matches.



ARTICLE 2

II. Technical Specifications for Handballs

2.1. Technical requirements according to Rule 3 of the Rules of the Game and Appendix 3

1. The handballs shall be produced of a leather or plastic casing. They must be round and the outer material must not be shiny or smooth.
2. The following three different categories of handballs shall apply:

a) Handballs played with resin

The following ball sizes (i.e. circumference and weight) shall be used for the different age categories:

- 58 to 60 cm in circumference and 425 to 475 g in weight (IHF size 3) for men's senior and men's youth (aged 16 and older) players
- 54 to 56 cm in circumference and 325 to 375 g in weight (IHF size 2) for women's senior, women's youth (aged 14 and older) and men's youth (aged 12 to 16) players
- 50 to 52 cm in circumference and 290 to 330 g in weight (IHF size 1) for women's youth (aged 8 to 14) and men's youth (aged 8 to 12) players

b) Handballs played without resin

The following ball sizes (i.e. circumference and weight) shall be used for the different age categories.

- 55.5 to 57.5 cm in circumference and 400 to 425 g in weight (IHF size 3) for men's senior and men's youth (aged 16 and older) players
- 51.5 to 53.5 cm in circumference and 300 to 325 g in weight (IHF size 2) for women's senior, women's youth (aged 14 and older) and men's youth (aged 12 to 16) players
- 49 to 51 cm in circumference and 290 to 315 g in weight (IHF size 1) for women's youth (aged 8 to 14) and men's youth (aged 8 to 12) players

c) Handballs for beginners

For beginners, different handballs may be used:

- 46 to 48 cm in circumference and 255 to 280 g in weight (IHF size 0) for children (aged 8 and younger) or beginners of different age groups
- 44 to 46 cm in circumference and 165 to 190 g in weight (size 00) for children or other beginners
- 46 to 48 cm in circumference and 190 to 225 g in weight (non-inflatable squeeze balls) for children or other beginners
- 46 to 48 cm in circumference and 190 to 225 g in weight (non-inflatable sponge balls)

Note: During use the handballs must retain their weight, shape and bouncing capacity.



ARTICLE 3

III. Special Specifications of Leather Handballs

1. Leather balls must be made of high quality full-grained leather. After tanning, the leather must:
 - have a high tensile and breaking strength (approximately 95kg/cm²)
 - be soft and supple to the touch
 - have fault-free and resistant grains and seams which exclude all risk of injury and do not fray or split.
2. The leather ball shall consist of at least 32 panels.
3. Fully synthetic sewing threads shall be used.
4. The bladders are made of latex or a similar, equivalent material with a stretching capacity of at least 600%.
5. The valve system of the bladder must be simple and effective to use.



ARTICLE 4

IV. Special Specifications of Plastic Handballs

Ball casings or bladders made of plastic must be a fully equivalent substitute for a leather casing or rubber bladder in every respect.



ARTICLE 5

V. IHF Seal of Approval

5.1. Awarding the IHF seal of approval

1. The IHF seal of approval may be awarded upon application to any ball manufacturer if the manufacturer fulfils the technical and financial requirements.
2. The application shall be made in writing, with the necessary technical documentation, in English, French or German to the IHF Head Office.
3. To allow the technical requirements to be checked, at least five balls of each type of ball shall be sent, free of charge, to the IHF together with the application.
4. A testing fee shall be charged for the inspection.
5. The IHF reserves the right to withdraw the seal of approval for balls if technical defects identified on subsequent retesting are not eliminated or if financial commitments made are not fulfilled.
6. The place of jurisdiction is Basle/Switzerland.

5.2. Identification of IHF approved balls

IHF approved balls must be clearly printed, in colour, with the official IHF logo (3.5cm high) and the designation 'IHF APPROVED PRO' or 'IHF APPROVED' as follows:

a) Handballs played with resin

IHF APPROVED PRO



IHF APPROVED



b) Handballs played without resin

IHF APPROVED PRO
IHF APPROVED PRO
RESIN FREE



IHF APPROVED
IHF APPROVED
RESIN FREE



5.3. Use of IHF approved balls

1. Only balls with the IHF seal of approval may be used at official IHF competitions.
2. A list of ball manufacturers with the IHF seal of approval is kept by the IHF Head Office and is available free of charge.



ARTICLE 6

VI. Licence Fee

1. On payment of the licence fee, the manufacturer gains the right to affix the IHF seal of approval to balls of the tested and approved type. The licence takes the form of a contract drawn up by the IHF Head Office.
2. The licence fee shall be paid annually in Swiss francs and, on conclusion of the contract, it shall be paid immediately for the current contractual year. For all subsequent years, it shall be paid by one month prior to the expiration of the contractual year.
3. The contract shall be extended by tacit agreement if the contracting parties do not exercise their right of termination.
4. If one of the contracting parties is no longer interested in awarding or using the IHF seal of approval, it shall notify the other party by registered post, at least three months prior to the expiration of the contractual year. If notice of the termination is not received in good time, the contract shall be valid for a further year.

Appendix 1



TEST FORM FOR HANDBALLS

Manufacturer: Article:

	Data:	Circumference in cm.	Weight in g.
New:
After use:
Bouncing properties:		

Notes to Articles 2 and 3 of the IHF Ball Regulations:

2.1.1:

2.1.2:

3.1:

3.2:

3.4:

3.5:

Remarks concerning the awarding of the IHF seal of approval:

.....
.....

.....
Place / Date

.....
Name / Signature of examiner

Appendix 2



**SPECIMEN CONTRACT
- BALLS -**

Since English is the IHF's first official language, contracts are only composed in English.

CONTRACT

between the

INTERNATIONAL HANDBALL FEDERATION, hereinafter named 'IHF',

with its Head Office at
Peter Merian-Strasse 23
P.O. Box
CH-4002 Basle
Switzerland

and represented by

.....

and

.....

hereinafter named 'Ball Manufacturer',

with its headquarters in

.....
.....
.....

and represented by

.....

§ 1 Subject of the contract

The IHF shall grant the Ball Manufacturer

the IHF seal of approval for handballs

and, in accordance with the IHF Ball Regulations,

the right to imprint the balls it produces
as mentioned under § 2 with the clear coloured imprint,
containing the IHF logo (3.5cm high) and
the designation 'IHF APPROVED PRO' or 'IHF APPROVED' as follows:

a) **Handballs played with resin**

IHF APPROVED PRO



IHF APPROVED



b) **Handballs played without resin**

**IHF APPROVED PRO
IHF APPROVED PRO
RESIN FREE**



**IHF APPROVED
IHF APPROVED
RESIN FREE**



The stipulations in the IHF's current Ball Regulations, which form an integral part of this contract and which both parties to the contract recognise in full, shall be authoritative.

§ 2 Specification of ball types

The rights listed under § 1 shall be granted to the following ball types exclusively:

.....

Should the Ball Manufacturer require the rights listed under § 1 for further of its products, an additional or amended contract shall be necessary.

§ 3 Licence fee

According to a decision of the IHF Executive Committee the annual licence fee has been set at

CHF..... (Swiss francs)

for the first contractual year.

The licence fee for the first contractual year, from to is payable upon the contract's conclusion. For all subsequent years it shall be paid by one month prior to the expiration of the contractual year into the following IHF bank account.

Account holder: Internationale Handball Federation

Bank name: Raiffeisenbank Birsig Genossenschaft

Bank address: Hauptstrasse 16; CH-4104 Oberwil

BIC/Swift: RAIFCH22774

CHF account number: 51859.40

IBAN: CH07 8077 4000 0051 8594 0

On payment of the licence fee, the Ball Manufacturer gains the right to affix the official IHF seal of approval to balls of the tested and approved type(s).

At the time that annual payment is made, the Ball Manufacturer shall notify the IHF in confidence of the previous year's production figures for the individual ball types as mentioned under § 2 of this contract. The IHF is obliged not to make this figure known to any third parties except the members of the Executive Committee.

§ 4 IHF logo

A sample of the IHF logo shall be provided to the Ball Manufacturer, if necessary, at the time the contract comes into force.

§ 5 Duration of contract

This contract shall be valid until further notice, at the earliest from

The contract shall be considered automatically renewed for another contractual year unless the Ball Manufacturer or the IHF exercises its rights pursuant to § 6.

§ 6 Termination of contract

The contract shall terminate according to the IHF Ball Regulations.

§ 7 IHF's duty to provide information

The IHF is obliged to indicate to its affiliated Member Federations at least once a year the existence of all balls mentioned in this contract, and recommend their use.

§ 8 Advertising

The Ball Manufacturer shall have the right to advertise sporadically or regularly in the IHF World Handball Magazine, in return for a contribution to printing costs.

§ 9 Place of jurisdiction

According to Article 1.6 of the IHF Statutes, the IHF shall be subject to Swiss law. The place of jurisdiction shall be Basle, Switzerland, where the IHF Head Office is located.

In case of any disputes arising out of or in connection with this contract, the parties shall exert their best efforts and strive for an amicable settlement. If no such amicable settlement can be achieved, any dispute arising out of or in connection with this contract, including any question regarding its existence, validity or termination, shall be referred to and finally resolved by arbitration under the Procedural Rules of the CAS Code (Articles R27 et seq.). These Rules are deemed to be incorporated by reference into this clause. The CAS shall act as an ordinary court of arbitration.

This contract shall be drawn up in duplicate.

This contract shall come into effect immediately upon signing by the two parties.

Place and date

INTERNATIONAL HANDBALL FEDERATION

Signature

Name

Function

Ball Manufacturer

Signature

Name

Function

Appendix 3

IHF Handball Requirements and Test Methods

1. General Principles

The IHF Handball Requirements and Test Methods define the requirements and test methods for handballs to be provided with the IHF seal of approval.

There are two categories of IHF approval:

IHF APPROVED PRO: for all official IHF matches as well as other international and elite level national matches.

IHF APPROVED: for all elite level national matches.

2. Test Requirements

The following table indicates the requirements that must be met for a handball to be eligible for certification:

Inspection Item	Handball with RESIN		Handball without RESIN	
	APPROVED PRO	APPROVED	APPROVED PRO	APPROVED
Circumference	size3 : 58-60cm size2 : 54-56cm size1 : 50-52cm	size3 : 58-60cm size2 : 54-56cm size1 : 50-52cm	size3 : 55.5-57.5cm size2 : 51.5-53.5cm size1 : 49-51cm	size3 : 55.5-57.5cm size2 : 51.5-53.5cm size1 : 49-51cm
Weight	size3 : 425-475g size2 : 325-375g size1 : 290-330g	size3 : 425-475g size2 : 325-375g size1 : 290-330g	size3 : 400-425g size2 : 300-325g size1 : 290-315g	size3 : 400-425g size2 : 300-325g size1 : 290-315g
Rebound Height	90-110 cm	90-110 cm	90-110 cm	90-110 cm
Sphericity	less than 2.5%	-	less than 2.5%	-
Size Retention	less than 1%	less than 2%	less than 1%	less than 2%
Shape Retention	less than 2.5%	-	less than 2.5%	-
Ball Grip	playable in dry condition	playable in dry condition	Playable both in dry and wet condition	Playable both in dry and wet condition

3. Test Methods

3.1. Test Conditions

The ambient conditions during testing shall be room temperature of 20 ± 2 °C, relative humidity of $65 \pm 5\%$ and atmospheric pressure of 860 to 1,060 hPa.

3.2. Testing Ball Pressure

The handballs are inflated with compressed air to the mean value of the range indicated by the manufacturer and clearly printed on the ball, i.e. manufacturer stated range is 0.10 to 0.20 bar, inflation pressure is 0.15 bar.

- The range of the inflation pressure indicated by the manufacturer shall be clearly printed on the ball.
- The difference between minimum and maximum inflation pressure indicated by the manufacturer shall be 0.10 bar or less.

3.3. Conditioning

The handballs are inflated to a testing pressure as per 3.2. After conditioning at 20 ± 2 °C and $65 \pm 5\%$ RH for at least 24h, the pressure is measured again and if necessary adjusted to testing pressure.

3.4. Circumference

After conditioning, the radius is measured by the CSM machine. Circumference is calculated automatically.

Test apparatus	CSM machine
Number of points measured	4,500 (45 cycles 100 radii each)
Number of handballs tested	3 per type

3.5. Weight

After conditioning, the weight is measured by an electronic scale with an accuracy of 0.01g.

Number of handballs tested	3 per type
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3.6. Rebound Height

After conditioning, the rebound height is measured from the rebound surface to the bottom of the handball when dropped from a height of 200 cm, measured to the bottom of the ball.

Empa Test:

A conditioned handball is dropped in a guided free fall with a defined velocity onto a plane steel surface. With the help of a video camera, the height of rebound, at the lower side of the ball, is determined. The parallax error caused by the difference in the height of rebound and the camera height will be taken into account in the final results.

<i>End velocity</i>	<i>6.25 ± 0.15 m/s (corresponds to a falling height of 2 m)</i>
<i>Number of samples</i>	<i>3 per type</i>

3.7. Sphericity

After conditioning, the radius is measured by the CSM machine. Sphericity is calculated automatically.

Test apparatus	CSM machine
Number of points measured	4,500 (45 cycles 100 radii each)
Number of handballs tested	3 per type

3.8. Shape and Size Retention

The handballs are inflated to a defined pressure and shot against a steel plate with a fixed angle at a defined velocity. After a defined number of shots, the sphericity and increase in circumference are determined, and any damage to seams or valve is noted.

Test apparatus	special test apparatus (Empa)
Number of handballs tested	3 per type
Number of shots	1,000 for each handball
Shot velocity	approx. 50 km/h

3.9. Ball Grip

The grip of the handball is tested and evaluated by male and female players. This player test is arranged by the IHF Technical Committee.

Number of handballs tested	3 per type
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*A scientific test method to measure the ball grip is currently being reviewed by Empa. If developed successfully, it may be added to the laboratory test items.

Note: The IHF Handball Requirements and Test Methods shall be effective immediately. Those seals of approval awarded by the IHF according to the previous handball specifications shall be valid until 31 December 2020.